THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. LXXIII. NEW YORK, SATURDAY, AUGUST 13, 1898. No. 7.

ORIGINAL ARTICLES.

WHAT THE PEOPLE OF IOWA EAT.*

BY J. FRED. CLARK, M.D.,
OF FAIRFIELD, IOWA.

A MEDICAL student at graduation knows the dose of potassium iodid or of sodium salicylate and something of the conditions indicating their use as remedies, but when in practice, the doctor's prescription is written, and the patient just before leaving his office asks: "Does it make any difference what I eat?" the young physician is usually at a loss for an answer. His teaching on this point has been meager and his ideas are confused. He doubtless prescribes "a light and easily digestible diet." Again, when detained in the country, the doctor is fed at several meals on fried pork, fried potatoes, heavy bread, and coffee boiled several hours, and before leaving is asked by the man of the house for a little medicine for "stomach trouble," the physician is apt, if a thinker, to see small chance for a few grains of pepsin or creosote to cope with such cooked messes as this farmer must three times a day do battle with. These questions, the prescribing of a proper diet in health and disease and the overcoming of a quite prevalent poor cookery, daily confront the country doctor, and would seem of sufficient importance to be worthy the consideration of this learned Society.

Instruction in dietetics is lacking in our schools, and the advice in our reference-books is, as a rule, inadequate. This is necessarily so because little attention has been given to the subject in the United States until within the last decade. Not until 1880 was any systematic analysis of human food-stuffs made in this country,[1] and not until 1895 [2] was any comprehensive American work on dietetics published for our use. The study of cookery, too, is of importance. "Quite as much depends on the suitable preparation of food as upon the selection and limitation of the food itself." [3] The proper cooking of food in Iowa is rare.

In order to obtain some practical information as to what the people of Iowa eat, how their food is cooked, and the relation of the food to the general health, printed question-sheets were sent to a large number of the people of Jefferson County asking for details on this subject. This paper is an attempt to formulate the results of this inquiry, and of several years of personal observation among the people of this county. The answers to the questions were, of course, not scientifically exact, but it is believed a view of sufficient definiteness is obtained to be of some use to our labors for better health.

Jefferson County is a tract of rich farm land in Southeastern Iowa. The county contains one town of 4500 inhabitants, and several small villages. A large proportion of the people are farmers, with the mechanics, merchants, and professional men common to such a community. Of the 17,000 inhabitants, but 75 outside of the county poorhouse have public help to food, and this help is but for part of the year. On the other hand, there is no extreme wealth, the equality in the condition of the people and the freedom from class division being perhaps as marked as anywhere in the world. The mean summer temperature is 71.6° F. The mean winter temperature is 20.6° F., and the mean annual rainfall is 34.33 inches.[4] The grains, fruits, and vegetables common to Iowa are raised in abundance. Pork, beef, mutton, and poultry are produced in excess of the local needs. Wood and coal are easily obtained. With these advantages the choice of a diet by these people would seem easy to all, and with the proper selection of food and good cookery the general health (in so far as it pertains to diet) should be excellent.

A review of the answers on the question-sheets sent to the people show the following prevalent conditions as to food and cooking: The people of Jefferson County eat three meals a day, taking breakfast at 6 to 8 o'clock, dinner at noon, and supper at 6 to 7 o'clock P.M. The principal meal is at noon. It is a general custom on Sunday when, because of rest, less food is needed, to have a much more elaborate dinner. It is also common to have the Sunday meals at widely varying hours, thus disturbing the otherwise regular habits.

Meat is eaten nearly universally three times a day. In the country this meat is usually pork in the summer and pork and beef in the winter. In the towns beef is more generally used. Mutton and poultry give occasional variety to the proteid diet. The percentages of these meats used was not accurately determined, but probably corresponds very nearly with those found by Gibson in his Missouri studies.[5] This meat is usually fried for breakfast, boiled or roasted for dinner, and sliced cold from the roast or

*Read at the 47th Annual Meeting of the Iowa State Medical Society, held at Des Moines, Iowa, May 18, 19 and 20, 1898.

fried for supper. The amount of meat eaten by the farmers is equivalent to six ounces of beef a day for each adult. In town the merchants and professional men average eight and ten ounces a day. More meat is eaten in winter than in summer because it is the easiest food obtainable. The excessive meat eating mentioned by Dr. Purdy[6] as one of the American dietetic errors cannot, it seems, apply to Iowa farmers. The amount eaten here is below Mrs. Richard's ideal ration.[7] The cooking is, however, greatly at fault, and produces harmful results. The animals are killed too young, and are eaten too soon after butchering. The best animals are exported, and there is much waste in buying particular cuts which, though having less nourishment, poor methods of cookery demand.

Potatoes are eaten at two meals every day. For dinner they are usually boiled without the skins, thus losing the salts[8] valuable to the economy. For breakfast or supper the potatoes (boiled) are sliced and fried in lard or butter. This dish, fried potatoes, is one of the most universal foods of our people. The amount of potatoes eaten averages ten ounces a day for each adult, which is excessive when added to the other carbohydrates consumed. To the excessive use of this food can be attributed the gaseous distention of the stomach and bowels which is so common and which is relieved by the restriction of the fried potatoes.

Bread forms here, as elsewhere, the most important article of diet. It is made almost exclusively of roller-process wheaten flour, and is raised with yeast. Though generally fairly well made, through ignorance of the fundamental principles involved in the manufacture (being usually home made) the bread is frequently heavy and indigestible. No whole-wheat bread is used except in a very few families. Corn bread is occasionally seen. Rye bread is even less common. Considerable bread is eaten at every meal, and with the other carbohydrates consumed gives an excessive ration, the results of which will be referred to below. Hot bread and batter cakes, so often condemned in a diet, are not used frequently by the people here studied. In some families such cakes are eaten at every breakfast, but this is not the rule. Pies and pastry are usually eaten twice a week. Some families have pies daily, but this is rare. From the papers examined there seemed to be no relationship between the hot bread and pastry diet and the stomach trouble of these people.

Oatmeal is eaten once or twice a week. It is usually boiled in water for a short time only, and not thoroughly cooked as it should be. The advantages of long cooking at low temperature seem unknown. Beans are eaten once a week, or less frequently, usually boiled or baked with pork. Corn-meal and hominy are eaten but little. A mush is at times made of corn-meal and water, which when cold is sliced and fried in lard. This cheapest of foods, corn, in its various forms, is much neglected. Butter, in the country, though made well, is much neglected, the average amount being two ounces or less a day for an adult. Pork evidently supplies the fat needed. The majority do not use cream freely. Though many times urging the increased use of butter and cream in tuberculosis, the writer has no evidence of this in any way substituting the advantages of cod-liver oil.

Fruits, either fresh or canned, and fruit jellies, preserves, and butters are eaten abundantly by all at every meal. Tomatoes are very generally used. With these fruits, maple and sugar syrup, and molasses and honey, a large amount of the sugars is consumed. The green vegetables grown in the garden are eaten freely in the summer and sparingly in the winter. Perfect methods of preserving fruits and vegetables for winter use are much needed, but are yet unknown.

The water-supply is from surface wells. These wells are located with an eye to convenience only, and without regard to the universally present cesspools which are an undoubted source of contamination, becoming each year a greater danger to our prairie towns. Tea is used occasionally for supper by a small percentage of the people. Chocolate and cocoa are rarely used, while coffee is drunk three times a day by a majority of the adults. This coffee is made by putting the ground brown berries in the coffee-pot, pouring on hot water, and boiling some time. The coffee-pot is often put on the stove as the first act in preparing a meal, and the decoction is boiled while all else is cooking. The coffee-pot is seldom washed, and egg is rarely used to clear the coffee. Coffee is drunk with sugar and milk or cream added. The writer has several times had attacks of dyspepsia after drinking such decoctions, and finds from the reports studied a marked relation between coffee-drinking and stomach trouble.

In cool weather the average amount of fluids taken by an adult is 32 ounces. In summer this amount is greatly increased, but on the average far too little is ingested. Alcohol, beer and wine are not generally used as part of the diet. Many men drink these beverages but not at the table nor with regularity. As to condiments, they are little used. Black pepper is consumed in moderate amounts, but chili, capsicum, tobasco, and strong sauces are used but by few of the people.

I have in a general way reviewed the food of this people, but perhaps we will be helped to a clearer

idea of their diet by a glance at some actual daily menus, three of which, typical of the representative classes, are here presented:

1. A FARMER.

BREAKFAST, 7 A.M.

Fried Salt Pork. Fried Potatoes.
Wheat Bread. Butter. Apples fried in butter and sugar.
Melted Sugar Syrup. Plum Butter.
Coffee.

DINNER, 12, NOON.

Boiled Beef. Boiled Potatoes.
Wheat Bread. Butter. Pickles. Stewed Tomatoes.
Canned Raspberries. Grape Jelly.
Berry Pie. Coffee.

SUPPER, 6 P.M.

Boiled Beef, sliced, cold. Poached Eggs.
Wheat Bread. Butter. Fried Potatoes.
Canned Cherries. Sugar Syrup. Plum Preserves.
Cake. Tea.

2. AN UNSKILLED LABORER.

BRAKFAST, 6 A.M.

Griddle Cakes. Wheat Bread. Butter.
Grape Jelly. Coffee.

DINNER, 12, NOON.

Fried Ham. Wheat Bread. Butter.
Boiled Potatoes. Baked Apples.
Pudding.

SUPPER, 6 P.M.

Wheat Bread. Butter. Oatmeal and Milk.
Apple Pie.

3. A BANKER.

BREAKFAST, 8 A.M.

Oatmeal and Prunes.
Hamburg Steak (beef) fried. Buckwheat Cakes.
Coffee.

DINNER, 12, NOON.

Roast Beef. Mashed Potatoes. Baked Squash.
Wheat Bread. Butter. Pickles.
Mince Pie.

SUPPER, 6 P.M.

Cold Roast Beef. Cranberries.
Wheat Bread. Butter. Canned Peaches.
Tea. Cake.

These actual daily menus are of typical winter-day meals. The town laborer, through a lack of knowledge in food composition and cost, has too little proteid, while the banker has too much meat in his diet. The farmer by frying his foods makes their digestion difficult, and by eating too much starch suffers from biliousness and fermentative dyspepsia.

With this picture of the peoples' diet before us, by briefly reviewing the death-causes and present prevailing diseases in the county, a relationship should be seen, if any exists, between the food and the health of the people. The mean annual death-rate in Jefferson County is 121. The mean duration of life is 41¾ years. Of the 599 deaths occurring from 1890 to 1895, 233, or 40 per cent., were due to diseases of the stomach and bowels (not malignant), diseases of the kidneys, bladder, liver and heart, apoplexy, and rheumatism, all of which may have had their origin in the improper use of food. But it is the morbidity more than the mortality that interests us. The bulk of the country doctor's practice in this part of Iowa, excepting the infectious diseases, surgery, obstetrics, gynecologic and sense-organ diseases, consists of constipation, the dyspepsias, chronic rheumatisms, and myalgias, acne, eczema, and their results. Constipation with the women is universal, and is common with the men. In summer this is somewhat lessened by the free use of vegetables and uncooked fruits. In looking for a cause for the constipation in the dietaries examined, (*a*) the small amount of fluids ingested, (*b*) the foods made indigestible by poor cookery, and (*c*) the use of foods leaving too little residue, might be considered in the order named. Dyspepsia—chronic gastric catarrh—with its results, is, in Jefferson County, one of the most prevalent diseases the doctor is called upon to treat. The dietetic errors shown by this investigation to be possible causes of this catarrh, are: (1) coffee-drinking, (2) the use of the frying-pan, and (3) the overeating of carbohydrates. Abstinence from coffee contributes toward the cure of dyspepsia, though the harm done by this beverage may be in part due to its being improperly prepared. Dr. Bedford Brown[9] says the substituting of the stew-pan for the frying-pan saved the Confederate army much sickness and many soldiers.

A common dietetic error among the people studied is the consumption of too much food, and this excess is greatest with the starches and the sugars. Fermentation, flatulent distension of the stomach and bowels, resulting palpitation of the heart and that series of symptoms denominated biliousness, are extremely common. The use of patent "liver" medicines, now so extensively sold, could be lessened by improving the general diet. It is surprising that in a study of the question-papers in no case was there any relation found between gastric troubles and the eating of pastries.

Chronic rheumatism and the myalgias are very common in Southern Iowa. These occur in the well-fed. A relationship between overeating, with too little fluid, and these diseases seems to be shown in the papers studied. Eczema and acne are undoubtedly affected by diet. These are here, as elsewhere, the most common skin diseases seen. It is probable that the dietetic errors which produce the stomach catarrh aggravate these affections.

Of course in a study of the dietetic causes of disease other things than the kinds of food eaten

must be considered. Rapid eating may cause good food to be indigestible. Bad teeth and the bacteria swallowed from a filthy mouth may help toward producing gastritis. But after considering all the elements, the following would seem to be the general dietetic causes of poor health in the communities studied: (1) Too little fluid ingested; (2) poor cookery; (3) overeating of the carbohydrates. Of these errors the first and last can be at once corrected by our prescriptions, but the overcoming of a too prevalent poor cookery is a more difficult problem. Cookery in Iowa is generally done by those who know little or nothing of the scientific principles involved. As far as is known to the writer, young women are not taught cookery or the principles of food selection in any Iowa school, with the exception of the State Agricultural College.

After some consideration, the shortest course toward the abolition of the frying-pan and the introduction of better cookery is thought to be the encouragement of the methods of Mr. Edward Atkinson.[11] It has been insisted that both meats and vegetables should be cooked at 180° C. (316.6° F.)[12]. It has been proven that economy in fuel and food flavors, ease in digestibility, and many other good purposes, are served by cooking food a long time at low temperatures. By many experiments with a wood-pulp bucket (costing 35 cents) inverted on an iron plate over an ordinary lamp, cheap food has been cooked in an attractive and digestible form. One great advantage in this cookery is that no skill is required, and young women can still devote their attention to music and Latin. The purposes of this discussion will not permit a more lengthy reference to this important subject.

The making of this inquiry has been of great interest to the writer, giving data and impressions that will be of practical use in professional work. Years of experience perhaps lead a doctor to give more attention to right-living and less to the prescribing of drugs. Many dicta relating to diet have been published and requoted until they appear as established facts. One is surprised when led to believe from his reading that excessive meat-eating causes rheumatism and myalgia, at being repeatedly told by his suffering patients that they eat but very little meat. It is a pleasure to note the valuable studies in diet made at the several Agricultural Colleges in the United States, and it was learned with regret from the President that the Iowa Station had made no such study. But it may be true that our professional statistics and the various data for our use are compiled now to too great an extent at large hospitals and in city institutions, and perhaps country doctors by some concerted study could do valuable work which would be better adapted to the use of such of us as practice in small towns.

BIBLIOGRAPHY.

1 Studies of Professor Atwater.
2 "Practical Dietetics," Thompson.
3 *Idem*, p. iv.
4 "Records of the Iowa Weather Service," Des Moines, Ia.
5 "Bulletin No. 31, U. S. Department of Agriculture," p. 7.
6 *North American Review*, June, 1897.
7 Thompson's "Dietetics," p. 265.
8 W. Mattieu Williams' "Chemistry of Cooking."
9 "Proceedings of the Pan-American Medical Congress," VI., p. 734.
10 Ewald, 2d edition, p. 238.
11 "Science and Nutrition," Edward Atkinson.
12 W. Mattieu Williams.

TUMORS OF THE BREAST.[1]

BY FOUCHE WARREN SAMUEL, M.D.,
OF LOUISVILLE, KY.;
PROFESSOR OF PRINCIPLES AND PRACTICE OF SURGERY AND OF OPERATIVE SURGERY IN THE LOUISVILLE MEDICAL COLLEGE; CONSULTING SURGEON TO THE LOUISVILLE CITY HOSPITAL.

CASE I.—Amanda H., colored; aged twenty-three years; married; no children; personal history good. She noticed a small hard lump in the outer and upper quadrant of the breast eighteen or twenty months before consulting me. It was not painful or tender to manipulation. She gave it no consideration for the time being, not using, as is customary with this class of people, even a local application of any kind, hence very little irritation was produced in its early history. She stated that two months after she first noticed the lump it was twice as large as when first observed. She had consulted a physician, who stated that it would have to be removed, but she absolutely refused to consent to surgical interference at that time. The growth steadily increased in size, and just before I operated upon her had begun to cause some pain and inconvenience. It had become very tender in certain areas. This I especially noticed a week or so before I removed it. I think the tenderness was due entirely to its being a very large tumor; standing out prominently it was subject to injury during the time she was at work, her occupation being that of a washwoman.

The tumor occupied the entire outer and lateral half of the mammary region; it was hard and nodulated; the breast was soft and was easily pushed to the inner and upper side of the growth. My incision was so made as to save the nipple and to hide the scar as much as possible, after the plan suggested by Gaillard Thomas. I regarded the growth as an adenofibroma which had not yet undergone cystic degeneration, and operated with a view of sparing the breast-gland if possible. Had I found it cystic, and I purposely cut into it when I had it well exposed to ascertain if a cyst were forming, I would then have removed the entire gland with the tumor. As cysts were not present, and it was completely encapsulated, the gland was left intact.

Adenomata may occur at any age but are most fre-

[1] Read before the Louisville Surgical Society.

quent between puberty and forty-five years, that is, during the period of sexual activity. They are rarely painful, the fibro-adenomata more often so than the cystic. It is reported that they frequently become painful and more sensitive to manipulation during the menstrual period. Adenomata of the mammary gland are, with few exceptions, fibro-adenomata. Since fibrous tissue is always mingled with the glandular hyperplasia, true adenomata are very rare. The excessive development of connective tissue and absence of secretion is the line of demarcation in the departure from the normal gland undergoing changes during lactation. The two varieties of adenomata are, as a rule, essentially benign; they may, however, degenerate into epithelioma. Orth makes the statement that these tumors may arise from the adventitia of the milk-duct, or the connective tissue in conjunction with the hyperplasia of gland-tissue. This fact of degenerative action in connection with recent pathologic observations have beyond doubt revealed that adenomata have a tendency to degenerate into tumors of a malignant type. This gives to the growth a peculiar clinical significance, and removal should be urged as soon as such tumors are discovered.

Mammary adenomata occur as fibro-adenomata, and cystic adenomata (so-called adenocele). As a rule, they are located in the superficial parts of the breast-gland; they may, however, be deeply situated; they are hard to the touch and glide easily about under the skin when examined. A cardinal feature of these tumors is their mobility. Fibro-adenomata, as a rule, rarely exceed the dimensions of an unhulled walnut, and are usually much smaller. The cystic variety, on the other hand, often attains a very large size, some reported weighing ten and twelve pounds. The cystic variety is also encapsulated, having a fibrous stroma with glandular acini embedded. The acini are often dilated, and intracystic growths are found springing from the walls, so-called papillomatous processes.

In the treatment of such cases the question of removal of the gland must be left to the judgment of the operator, when seen in their early stages. One general rule may be stated: When the patient is more than thirty-five years of age and the tumor very large and painful, it will be safer to remove the entire gland. Age should rank very high in estimating the extent of the operation. Mr. Clark believes that in certain cystic processes in the mammary gland an intermediate period is reached, in which, if certain stimulus is exerted, an adenoma is the result; or, if there is a predisposition and the patient is more than forty-five, a carcinoma will be the result, a most important observation, if pathologically correct, which has a special clinical significance in this class of tumors.

CASE II.—Mrs. K., a widow, aged forty-nine years, mother of several children, consulted me in February, 1895. Her history up to that time had been good. About a year, or probably less, before consulting me she observed a small lump in the upper and outer quadrant of the left breast. At the time of my first examination the tumor was about the size of a hen's egg, the skin was adherent over it, and it was apparently slightly fixed to the underlying muscle. The nipple was markedly retracted and the glands were enlarged along the outer border of the pectoral muscle and in the axilla. The tumor was very hard to the touch and the skin overlying it was of a brawny appearance and shriveled. I proposed a radical operation, after the method of Halsted. Her health at that time was not of the best, and I feared that possibly dissemination had or was occurring. I stated to her that the operation suggested was an extensive one, and not without danger. After due consideration she consented.

I removed the breast, including in the circular portion of my incision the entire gland at its base. The pectoral muscle was cut away, and the tumor was found adherent. This exposed the axilla and infraclavicular region. The axillary vein was easily seen, and all fat and glands were entirely removed as high up as the middle of the clavicle. This was as high as any enlargement of the lymphatics was found. The nerves were carefully preserved. This left a very large space at the site of the breast which could not be covered by skin, the triangular part of the flap being used to entirely close up the axilla. The extensively denuded surface was allowed to granulate, and ten days after the primary operation I skin grafted the defect with an oval piece of skin, four inches long by three and one-half inches at its widest part, from the chest on the opposite side, allowing the pedicle to remain intact, as a good blood-supply was necessary to maintain the nutrition of the graft. After three days it was attached firmly and the pedicle was cut at the margin of the wound made by the removal of the breast. A considerable piece of pedicle was left, which was replaced in its original position, and assisted materially in closing the defect left by the skin graft.

This patient was well, with no sign of recurrence, in July of this year, the last time I heard from her.

CASE III.—Mrs. F. was referred to me by her physician. About six months before I saw her she had noticed a small nodule in the breast, which she said was becoming very painful and had doubled in size within this period. There was no glandular involvement, and the nipple was not retracted. The same operation as in Case II. was performed, the axilla, which was found studded with small lymphatic enlargements, being cleaned out as high as the middle of the clavicle.

In both of these patients the use of the arm is almost as good as before the operation. Microscopic

sections of both these tumors showed them to be pure carcinoma of the acinous variety.

During the year 1889 I operated in one case of cancer of the breast, and during the same year assisted in two more. From that time until 1895 I have notes of four amputations of the breast in addition to the last two cases here recorded. Deducting the last two cases, it leaves six patients operated upon by what we call to-day an incomplete method. I have been able to follow the history of four of these patients. In two cases the axilla was not invaded because at the time of the operation no enlargement was felt in the axilla; the skin over the tumor was not appreciably involved; in both the nipple was slightly retracted; the entire breast was removed by a small elliptical incision, and the fascia over the pectoral was not disturbed. In one of the cases a few enlarged glands along the free border of the pectoralis major muscle were removed. In both patients recurrence took place; in one there was local recurrence in the scar, with lymphatic involvement below and above the clavicle when she returned for treatment. In one, regionary recurrence took place in the gland above the clavicle and in the axilla. In both instances a secondary operation was refused. In the third case a secondary operation was permitted. The recurrence was first noticed in the scar as exuberent granulation tissue, and occurred about three months after the primary operation. The secondary operation consisted of excision of the granulation tissue and the use of a cauterizing paste, composed of sulphuric acid and charcoal. Before the healing process was nearly completed enlargements in the axilla and above and below the clavicle were easily felt.

Recurrence took place in the four patients in three, six, seven, and ten months respectively. The prognosis in one upon whom a secondary operation was performed was considered at the time of the primary operation most favorable, but recurrence was more rapid than in the others, in which the tumor was larger and the skin found to be slightly adherent. In the two cases in which the axilla was invaded, enlargements were felt in both before the operation, and these enlargements were found to be very numerous and matted together when the axilla was fully exposed. In each instance the axilla was cleared, as was the practice then, of all glands that could be felt and seen, but the pectoral fascia was not removed. Local recurrence took place in seven and ten months. The glands were so enlarged in one case twelve months after the second operation as to produce edema of the arm. Excruciating suffering was experienced by this woman before she was relieved by death.

I am aware of the fact that operation after operation has been performed upon patients and their lives prolonged for many years, yet they all seem to have been incomplete operations from the first, and there are few patients who can be persuaded to submit to these multiple operations, which after all hold out only a slight chance for anything in the way of permanent relief, for there are reported cases in which even the second and third operations have been done and the patients died of internal metastases in less than twelve months after the primary operation. Observation goes to show at this time that if success is to attend operations for breast cancer, they must be done early and must be complete. I would designate as an early operation one performed before any enlarged glands are demonstrable along the border of the pectoral muscle, and before the skin has become involved in the infiltration. I regard this period early, for the rule among patients is to keep away from their physicians for at least three to six months after a nodule has been discovered, and ordinarily they do not present themselves for treatment until the tumor begins to enlarge, becomes painful, and in a majority of cases not until the skin has become involved.

The systematic cleaning out of the axilla was first advocated and practised by Volkmann, Billroth, and Küster, whose results were probably the best obtained until within a short period of the present time. Although these operators labored faithfully to master the disease by constantly extending their operative measures, local recurrence in their practice was enormous. Even as late as 1893, Bland Sutton laid great stress upon the importance of avoiding opening the axilla, if possible, on account of the added risk to the patient. Volkmann, Billroth, and others were systematically cleaning out the axilla and removing the pectoral fascia in the early stages of breast cancer long before this, and Volkmann removed part of the pectoral muscle when satisfied of its involvement. To the last-named operator we owe the statement of the difference, prognostically, between the involvement of the pectoral muscles by extension of the growth and the invasion of the muscles by metastasis. This may be explained, as Ludwig says, by the cellular elements entering the lymphatic system of the muscle and being carried rapidly by the muscle contraction throughout its fibers. It is not necessary that the tumor be adherent to the muscle in order that the muscle itself be involved, and, as stated by him, carcinoma may be embedded in muscle and still not *involve* the muscle, by virtue of the fact that the lymphatics spread out upon the fascia and do not follow the blood-vessels into the connective-tissue septa between

the muscle-fibers, in which theory he is supported by Heidenhain, whose investigations have proven that the direction of the lymphatic current is from muscles to fascia and not in the reverse direction. So much was Volkmann impressed with the fact that the fascia is involved long before the muscle, that he adopted a method of operating which has become classical. It has been his advice to remove the fascia of the pectoral as clean as possible, and he asserts that when carcinoma has made its way into the lymphatic vessels it has invaded the fascia down to the surface of the muscle, however thick the layer of fat between the breast-gland and muscle has been, even if it still remain perfectly movable.

As to the ultimate results, or what might be called radical cures after complete operation, most surgeons accept even yet the views of Volkmann, that at least three years must pass before a radical cure can be claimed. His method of cleaning the fascia from the pectoral muscle, a wide incision, with systematic clearing out of the axilla, have given the best results up to the present time, but it is by the method of Halsted, in this country, that the radical cure of breast cancer gives far better results if the patient is operated upon before dissemination has taken place.

The following table is from Halsted's paper, published in 1894:

Operator.	Time.	Number of cases.	Local recurrence. (Per cent.)
Bergmann	1882–87	114	51–60
Billroth	1867–76	170	82
Czerny	1877–86	102	62
Fischer	1871–78	147	75
Gussenbauer	1878–86	151	64
König	1875–85	152	58–62
Küster	1871–85	228	59.6
Lücke	1881–90	110	66
Volkmann	1874–78	131	60
Halsted	1889–94	50	6

Halsted says: "The prognosis at the time of the operation was recorded as hopeless or unfavorable in 27 of the 50 cases of complete operation. In every one of the 50 cases some or all of the axillary glands were cancerous."

In the two cases reported I followed the method of Halsted in every particular. In the case of the first patient nearly three years have elapsed, and in the second, a year and five months since the primary operation. In neither has local or regionary recurrence been discovered. The patients remain in good health, with almost perfect use of the arm. I am convinced that the operation is incomplete unless the pectoral fascia and muscles are removed. It is never known until after a microscopic study of the muscle-fibers has been made whether or not they are involved, and as they are involved before decided lymphatic involvement is palpable, it is poor surgery to leave the muscle behind, the loss of which does not entail a great amount of disability as far as the arm is concerned.

THE OBSTETRIC FORCEPS AS A CAUSE OF MENTAL AND NERVOUS DISEASE; A PROTEST.

BY V. M. REICHARD, M.D.,
OF FAIRPLAY, MD.

IT has apparently become almost an accepted dictum among certain alienists and neurologists that, given a child in whom there is an existing mental or nervous defect and a history of forceps delivery, the relation of cause and effect of necessity exists. Indeed, judging from the statements one sees in medical literature, forceps delivery necessarily entails great risk to the future usefulness of the child. Against this trend of opinion I want to record a very positive protest born of a fairly large experience in general practice, having been able to follow the history of my cases through years.

Cerebral membranes and tissues are in far more danger, it seems to me, from prolonged and unassisted labor than from any pressure which may be applied to the head by the proper use of the forceps. If there be maladroitness of application, that is a fault not chargeable to the instrument but to the operator. Avoidable damage to the fetal or maternal structures must be charged to the proper account. No surgeon would tolerate condemnation of his pet operation because some one else with less skill, or who failed to comprehend its principles, had unfortunate results. I hold that vastly more damage is done to the structures involved in mental and nervous processes by injudicious and incapable delay than by the timely and proper use of the forceps. The following case will serve as an illustration:

On October 5, 1889, I was called in consultation to see Mrs. L., with a view to performing craniotomy. I found her to be a large, fat woman, in labor with her sixth child. All her previous labors had been prolonged and difficult. When I saw her she had been in labor twenty-four hours, with hard pains nearly all the time. The attendant had attempted to deliver with forceps, but considered the head too large to pass through the parturient canal. A vaginal examination revealed a large boggy mass projecting downward. Neither fontanelle nor suture-line could be made out. The os was dilated to its extreme limit, and high examination showed the head to be lodged on the brim of the pelvis. The long forceps was applied, but the grip was insecure and little force could be applied in traction before it slipped. By external manipulation and very steady, gradual, and

patient traction the head at last passed the obstruction and the woman was speedily delivered of a living male child weighing eight and a half pounds. Its appearance was monstrous; it looked double-headed, with one head superimposed upon the other. It was unconscious when born and remained so for a week. Soon after birth it was taken with tonic convulsions, and during the first week had more than one hundred such spasms. It gradually recovered and began to thrive and grow. He is now a strong, sturdy boy at school, wearing a 7⅜-hat. While fairly intelligent, he is a moral terror, and among all the children he is the only one with a neurotic tendency. Any slight indiscretion in diet brings on the most dreadful tonic convulsion, from which he does not recover for hours. I have always felt that had this child been delivered twelve or eighteen hours sooner his peril would have been avoided.

I have seen children injured in delivery with forceps, but the injury was due to the malformation of maternal structures and not to the forceps. It has become a question with me as to what extent external force short of actual rupture of the meninges will develop cerebral troubles in the child. Any one who has seen many occipitoposterior deliveries will be struck with the facility with which cerebral tissues change their relative position, with no resulting harm. A long wire-drawn head, bearing no resemblance in shape to the normal fetal head will gradually right itself with not a particle of harm done. According to this ultra school of neurologists every occipitoposterior delivery should result in a crippled brain. In thirty of these patients, some of whom are now more than twelve years of age, I have yet to see the first bad result. Indeed, if there be any physiologic reason why the bones of the fetal head should be so freely movable it is that they, and *pari passu*, the cranial contents, may allow such change in relative position as the exigencies of delivery demand.

To those who have done even a small amount of obstetric work it must have been a matter of frequent notice how readily the bones of the skull bend when pressure is applied, as in rectifying faulty head positions, and yet the child be absolutely devoid of symptoms pointing to brain injury. True, these depressions and bendings of the cranial vault are but momentary and disappear as soon as the force is removed. The following case, however, shows how entirely void of ill effect even a permanent depression may be:

On July 17, 1896, Mrs. D. fell into labor with her first child. Though slow, her labor advanced satisfactorily until the head was on the perineum, when the woman's vital powers began to flag. Applying the short forceps the fetus was easily delivered when, to my horror, I found a depression almost as large as a silver dollar over the right frontal region made by the point of the forceps-blade. I, of course, expected all sorts of dreadful results and watched the child with great interest. His development has been perfectly typical. The depression was gradually obliterated as the bone solified and now, more than two years after, there remains no trace of it and the child is above rather than below the average in mental and physical development.

I, of course, like every other man in general practice, have seen children with mental and nervous defects, but in the cases coming under my care there has been absolutely no history of forceps delivery. All those of defective mentality have been born normally, the labor in every case being exceptionally easy.

That the forceps, badly applied, is capable of doing damage I am not denying; that the pulling of a large head through a small and contracted pelvis may do damage to the head, I also am not denying. This last needs must be, and in deciding what shall be done it is a question of risk to life or usefulness of the child, or submitting the mother to a capital operation. These cases must each be decided individually and in each the individual risk must be taken, but that the ordinary use of the forceps, in any case in which it alone is indicated, and is used simply to supplement the waning or exhausted *vis a tergo*, is in itself a source of danger to the child's brain I have failed to observe, and against the theory that it does so I must most emphatically protest.

WAR ARTICLES.

LEITER GENERAL HOSPITAL—SOLDIERS' AID COMMITTEE—HOSPITAL TRAIN—DISCHARGES FOR DISABILITY.

CHICKAMAUGA PARK, GA., August 7, 1898.

THE writer made his first visit to Leiter General Hospital last week, and was given a cordial welcome by Major C. E. Carter, United States Volunteers, who is in charge. The Major and myself had not met for nearly fifteen years, having separated at old Fort Thomas, Arizona, during a campaign against the wily Apaches. Leiter Hospital is running at its full capacity, the vast majority of cases, perhaps ninety per cent., being of typhoid fever. The Brand method of treatment is carried out, and gives a mortality of from 1 in 16 to 1 in 18 cases, or from 6.25 per cent. to 5.11 per cent. As high as 1000 pounds of ice have been used in one day to furnish the required degree of temperature to the baths. It is customary to grant furloughs to patients convalescent from typhoid fever in this hospital. Surgical cases have not been so abundant as in the earlier weeks of the campaign. Operative cases occur not infrequently, however, necessitating a resort to the knife for appendicitis, or to the splint for fracture of the long bones. Many alterations and improvements, both within the building and on

the grounds, are in progress, and the institution under the excellent management of Major Carter is bound to flourish and fulfil its useful mission.

I was recently in receipt of a letter from the Soldiers' Aid Society, through its secretary, Mrs. Daniel N. Bash of Peoria, Ill., offering assistance in the way of supplies—jellies, blackberry cordial, pajamas, and other needful articles—for the sick of this Division Hospital and Ambulance Company, and we responded with gratitude to the call. There are now about 300 sick in our Division Hospital, and the Ambulance Company is kept on the *qui vive* to supply the ambulance service. This morning at 5.30 o'clock sharp eighteen ambulances were in waiting at the Division Hospital for the transportation of typhoid-fever patients to Lytle, whence they will be transported by hospital train to Fort McPherson, Ga., after swelling the list to 134 by additional cases from the First Division Hospital of this corps and other sources. The sick were carefully but expeditiously unloaded from the ambulances, and ninety-two of those unable to sit up were placed in lower berths of tourists' cars, one to each berth, on a comfortable mattress on white linen sheets. The upper berths are used when the necessity exists, and they serve to accommodate the convalescent patients. Major Charles Richards and Captain Henry R. Stiles, Medical Department, United States Army, were charged with the care and transportation of the sick by hospital train, and after unloading these at Atlanta, will probably go on to Tampa, Fla., for sick or wounded awaiting them there.

Certificates of discharge for disability for diseases not incident to the service, or rather for diseases or disability existing prior to enlistment, still continue to be handed in to boards of three medical officers convened for the purpose of scrutinizing the certificates and approving or disapproving them before forwarding to authorities competent to order discharge from service. Those certificates submitted, for example, for asthenia consequent upon typhoid fever, are usually disapproved and a furlough recommended. In this way a good man may be spared the service, and the Pension Department not unnecessarily burdened with claims for temporary disability. Far too frequently cases are brought before the board with the history of maiming, or physical deformity, or mental incapacity, years of epileptic seizures, moral obliquity, luetic manifestations, and other disabling conditions existing prior to enlistment. Not too frequently that the Army should find an early riddance of them, but too frequently that those so disabled physically, mentally, or morally should have in some instances withheld pertinent facts of their past or present physical ailments from the knowledge of the recruiting and medical officers, or have evaded their scrutiny on account of careless or faulty methods or duty perfunctorily or negligently performed. The stringency of our recruiting regulations is still in effect, and it does not seem to be the purpose of the Administration to let down the bars during war times, and more and more each succeeding year am I impressed with the paramount importance and weighty moral responsibility pertaining to the functions of the recruiting officer and medical examiner of recruits.

It is a matter for contemplation and for serious reflection by the medical staff of the Army that within every three years the whole enlisted force is brought before it for judgment to be pronounced as to their physical and mental fitness and capacity for performing effectively the duties of the soldier. Recruiting and medical officers should keep constantly before their mind's eye Tripler's inimitable description of the leading characteristics of a good constitution: "A tolerably just proportion between the different parts of the trunk and members; a well-shaped head, thick hair, a countenance expressive of health, with a lively eye; skin not too white, lips red, teeth white and in good condition; voice strong, skin firm, chest well formed, belly lank, parts of generation well developed, limbs muscular, feet arched and of a moderate length; hands large. The gait should be sprightly and springy, speech prompt and clear, and manner cheerful. All lank, slight, puny men, with contracted figures, whose development is, as it were, arrested, should be set aside. The reverse of the characteristics will indicate infirm health or a weakly habit of body; loose, flabby, white skin; long cylindrical neck; long, flat feet; very fair complexion; fine hair; wan, sallow countenance," etc., if they would have a regiment or an army of approximately physically perfect recruits not encumbering the sick recruits with other diseases than the infectious fevers which depend so largely on conditions or environments for which the recruit is not individually responsible, nor deranging the effectiveness of an organization for the time being by frequent resort to certificates of discharge for disability for diseases incurred prior to enlistment. The boards are rapidly weeding out the incapable and incapacitated men, and recommending furloughs in many cases to convalescents who give promise of early usefulness.

HENRY I. RAYMOND, M.D.,
Major and Surgeon, United States Volunteers.

SICK AND WOUNDED SOLDIERS FROM THE BATTLE-FIELDS OF SANTIAGO, CUBA, AND VICINITY AT THE UNITED STATES MARINE HOSPITAL, STAPLETON, STATEN ISLAND.

BY GEORGE W. STONER, M.D.,
SURGEON IN COMMAND, UNITED STATES MARINE HOSPITAL SERVICE, PORT OF NEW YORK.

OF the 100 sick and wounded soldiers admitted to this hospital July 16, 1898, a large majority received their wounds on the first day of July, some on the second and third days of the month, and a few as early as June 24th. The wounds in most cases were more than two weeks old, and in some cases more than three weeks old, when the patients were admitted, hence the brief and necessarily incomplete description of some of the cases here reported.

Some of the wounds were slightly infected on arrival, but the majority were in good condition, proving the value of the first dressing properly applied and with due regard to asepsis. Forty per cent. of the men were

wounded in the upper extremities, 29 per cent. in the lower extremities, 10 per cent. in the head and neck, 5 in the chest, 2 in the back, and 1 in the abdomen. Four suffered from the effects of heat (sunstroke), and one from concussion of the brain and spinal cord. Many cases were complicated by malaria and diarrhea, and there were two cases of enteric fever (typhoid). Seventeen additional patients, all medical, and chiefly malarial cases, were admitted July 30th, having arrived at quarantine the day before on the transport "Leona."

Many of the surgical patients required comparatively little treatment beyond the necessary changes of dressings, and those wounded in the upper extremities and a number of others have been able to be up and about the hospital and grounds since the day of arrival. Nearly all the wounds were produced by the Mauser bullet, two by shrapnel, and two by pieces of shell, and in one case by shell explosion. The wounds are nearly all perforating. In a few cases the ball remained lodged in the body. Removal was easily effected in two cases by the aid of the X-ray, but no attempt has been made to remove balls lodged in the chest, of which there are two cases, both the men doing well. The wounds produced by the Mauser bullet in many cases were not unlike a large needle wound, the wound of entrance and that of exit in most instances seeming to have been about the same as to size and freedom from laceration. In a few cases the wound of entrance was the larger, and in a few others the conditions were exactly the reverse.

There are six fractures of the upper extremities, three of which are comminuted. The treatment of the infected wounds, and in fact of all the wounds, has consisted for the most part in antiseptic irrigation, followed by iodoform-gauze dressing. In some cases peroxid of hydrogen was first used to cleanse the wound. These measures, together with good nursing, good food, pleasant surroundings, and plenty of air space have thus far given as good results as could reasonably have been expected.

In submitting these notes, I beg to express my obligations to Assistant-Surgeons H. S. Cumming and H. B. Parker, and Acting Assistant-Surgeons R. C. Craig and T. B. McClintic, and Interne Albert Butler for valuable assistance in preparing the same.

CASE I.—Joseph Bily, aged thirty-one years; native of Austria; member of Co. G., 16th Regiment. Wounded, July 2, 1898. Wound of entrance in frontal bone over left eye; exit, middle of posterior border of sternomastoid muscle, evidently passing through brain tissue. July 16th, complained of slight pain and total loss of vision in left eye, but the natural appearance of eye is unchanged, save slight injection of conjunctiva. 18th, wounds healed. 21st, slight paroxysmal pain; 22d, slight pupilary reaction, but total blindness of left eye. 25th, comfortable. 31st, doing well.

CASE II.—Frederick Zeitz, aged thirty years; band musician, 16th United States Infantry. Wounded, July 1, 1898. Was lying down when struck by Mauser ball. Wound of entrance in middle of and just anterior to center of ramus of inferior maxilla of the left side, the ball entering sideways, having first hit the earth in front of him. The ball entered the antrum, destroying a considerable portion of the anterior surface and alveolar border of the superior maxilla; going downward and backward, it emerged through the palatal and nasal portion of the same bone, opening into both inferior meati and mouth. Its course was then checked by the molar teeth of right side. He removed the bullet with his fingers, it lying free in the oral cavity, and then applied a first-aid bandage to try and control the profuse hemorrhage. Surface dressings were applied daily for the next six days, when hemorrhage completely ceased; was afterward removed to the transport "Olivette" and sent North. On admission the antrum and both nasal cavities were found filled with pus, mucus, and fragments of bone. These were removed, and cavities frequently irrigated with mild antiseptic solution; granulation formed rapidly, and may completely close wound in mouth. The external wound has now (August 2) completely healed. Speech and swallowing are interfered with to a considerable extent.

CASE III.—Paul A. Barteline, aged nineteen years; native of Germany. Co. D., 16th Infantry. Wounded, July 1, 1898, by bullet entering on right side of face, passing through ramus of jaw to opposite side, downward and backward to point of exit below and behind left ear, near the insertion of sternomastoid muscle. July 16th, wound in good condition, apparently healed; no pain, but mouth cannot be opened more than about 2 centimeters. July 31st, improving.

CASE IV.—William Clark, aged twenty-seven years; native of District of Columbia. Co. E., 24th Infantry. Wounded by a bullet from a sharpshooter in a tree-top. Wound of entrance frontal bone above right eye; first point of exit inner side body of inferior maxillary bone, reentering muscles of shoulder, and emerging at inferior angle of scapula. July 16th, small wounds of entrance and exit nearly healed, except wound of back, and this is granulating. Total blindness of right eye from probable detachment of retina. Cornea opaque; muscular movement of eyeball not affected. 18th, some pain in right eye. 31st, improving, except as to eyesight. August 2, doing well.

CASE V.—David Holden, aged thirty-three years; native of Tennessee. Corporal, Co. F., 24th Infantry. Wounded, July 1, 1898. Bullet entered skull behind right ear and emerged on left side of nose just below inner canthus of left eye; some hemorrhage. July 16th, complained of headache and some defect of hearing in right ear. 19th, small quantity of purulent matter removed from right ear. 20th, headache and soreness of right side of face. Irrigation of warm solution of borax ordered for ear. 25th, ear improving. 28th, pain right side inferior maxillary. 30th, pain at angle of jaw. 31st, improving. August 3rd, wounds are healed. Lateral motion of jaw limited by reason of injury to pterygoids. Some sensory paralysis in region supplied by orbital branch of fifth nerve. Membrana tympanum was ruptured, and there was marked tinnitus, but that has nearly all gone.

CASE VI.—Charles H. Hoadley, aged nineteen years; native of Massachusetts. Co. K., 2d Regiment, Massachusetts Volunteers. Was wounded July 1, 1898. Bul-

let entered right side of neck, and apparently passed upward to ramus of jaw. No wound of exit. On admission to the United States Marine Hospital, July 26th, wound was healed, and patient was in fairly good condition, save some headache and restlessness at night. July 21st, headache all gone. Feels first-rate. July 28th, X-ray shows bullet, or portion of a bullet, above hyoid bone, behind trachea, near common carotid artery, where for the present at least it is apparently doing no harm, and patient declines further treatment. Furloughed July 30, 1898.

CASE VII.—James Davis, thirty-two years old; nativity, North Carolina. Co. F., 24th Infantry. While on the firing-line on July 1st he was struck on the forehead by a missile of unknown character and remained unconscious for an hour or so, losing "a lot" of blood. When admitted July 16th his wound was nearly healed and no complications had occurred. The missile raised a horseshoe-shaped flap 7 cm. in length, its convexity downward, and 5 cm. above the glabella. The wound is now healed. There has been no indication of any wound to the frontal bone.

CASE VIII. — James A. Bingham, aged thirty-eight years; nativity, Indiana. Corporal, Co. G., 2d Infantry. Wounded, July 2, 1898. Bullet entered one inch below right shoulder-joint anterolaterally, passing directly backward through muscles, but emerging three inches from point of entrance. July 16th, wound in good condition. Says he had some fever on the voyage from Santiago to New York. 17th, some pain on motion. Has troublesome cough and bronchitis; no fever. 21st, feeling better; cough less annoying. 24th, says his "bones ache;" bowels loose. 27th, has temperature of 38.2° C. (100.6° F.); pulse, 80. 29th, temperature 37.2° C. 30th, temperature up to 38.4° C. (101.2° F.). August 2d. Temperature has risen one degree every afternoon the last four days, dropping back half a degree in the morning, and is now—evening—up to 40.2° C. (104.4° F.); pulse, 100; bowels quite loose; no pain. Typhoid fever of severe type.

CASE IX.—Willis E. Parker, aged twenty-four years; nativity, Illinois. Sergeant, 10th United States Infantry. Wounded, July 1, 1898, in upper third left forearm, middle of left arm, left shoulder, neck, and right shoulder; a wound of entrance and exit in each locality; ten wounds in all. First wound of forearm with comminuted fracture of radius, wound of entrance being on exterior surface of arm over ulna about four inches below elbow-joint; ball went downward and inward, fracturing the radius with slight comminution, and made exit over inner border of radius about two inches lower on arm than wound of entrance. The arm being strongly flexed at the time, the ball passed through skin and fascia over biceps, and again over deltoid; reentrance at insertion of, and passed through right, sternomastoid muscle and out at center of right clavicle; reentered at outer extremity of and below clavicle, and lodged under skin over trapezius muscle, about center of superior border of right scapula, where it was removed by skin incision. Hemorrhage free at all wounds; first-aid dressings applied one hour after wounds were received, and again next day. Left forearm was dressed with a wire splint on July 2d, and on July 8th was encased in plaster dressing on the transport "Olivette." On admission arm was examined and fracture located; some callous but no union; splint applied. August 3rd, fracture firm; all wounds healed; utility of parts good.

CASE X.—Andrew Kretschener, aged thirty-three years; native of Germany. Corporal, Co. C., 16th Infantry. Wounded, July 1, 1898. Bullet entered arm at middle of deltoid muscle externally, and passed directly inward, producing a comminuted fracture of humerus, and, entering the chest between fourth and fifth rib, passed downward and backward through the lung to final point of exit over spinous process of twelfth dorsal vertebra. July 16th, has antiseptic dressing and wire splint on arm. Hemoptysis was marked for some days, but ceased on the 14th; has some pain in arm. 18th, antiseptic dressing renewed, and arm and forearm placed in wire splint. 23rd, wounds of soft parts of arm healed; chest wounds healing; angular splint applied to arm. 31st, doing well.

CASE XI.—James Grimes, aged thirty-five years; native of Kentucky. Corporal, Co. B., 24th United States Infantry. Wounded, July 1, 1898, in left forearm. Perforating gunshot wound, the ball entering on inner border of radius, and made exit on outer border of ulna, transversely across forearm, and about four inches below the elbow-joint. Both entrance and exit were enlarged and infected; there was a fracture of both bones of forearm, the radius being comminuted. Hemorrhage was slight; first-aid dressing immediately applied. July 2d, dressing was removed; anesthetic given and loose fragments of bone removed; wire splint applied. On admission dressings contained some pus, but wounds were in fair condition, cavity of radius filling up with granulation, bony union at fracture of ulna. Had seven malarial paroxysms on July 17th. August 3rd, forearm still in splints and doing well.

CASE XII.—Edward J. Albertson, aged twenty-three years; native of New Mexico. 1st. Volunteer Cavalry. Wounded, July 1, 1898. Penetrating wound by Mauser ball; wound situated just below and internal to styloid process of radius on posterior surface of arm; is almost healed; a superficial dressing applied; maintains the ball is still in wound; some stiffness of thumb and constant pain. Wound examined on July 26th and found entirely healed; there was an area of fluctuation below wound, and, on making incision a considerable quantity of pus was evacuated. Ball could not be located. July 27th, was examined by X-ray. A Mauser ball is seen lying along side of and parallel with metacarpal bone of thumb. The incision made yesterday was slightly enlarged under cocain and the ball extracted. Is now rapidly healing.

CASE XIII.—Charles F. McCoy, aged thirty-eight years; native of Pennsylvania. Private, Light Battery F., 2nd Artillery. Wounded July 2, 1898, in elbow-joint, right arm. Wound of entrance about one inch above external condyle; wound of exit about two inches below same point. The arm was flexed at the moment of

injury; the ball passed through the elbow-joint, apparently doing very little damage. Both wounds are small, and healed rapidly. Forearm has a range of motion of about 25° without producing pain. Has almost complete loss of power in muscles of forearm; slight motion in thumb; fingers powerless. Massage will be begun in another week; it usually gives excellent results.

CASE XIV.—Herman Nicolaz, aged thirty-seven years; native of Germany. Private, Co. F., 6th United States Infantry. Wounded in forearm, July 1, 1898. Wound of entrance two and one-half inches above styloid process of ulna on extensor surface; wound of exit one inch above same point on flexor surface. Produced a compound comminuted fracture of ulna; fragments were removed and drainage used. Wound is in good condition and healing rapidly. The motions of the wrist-joint and fingers will not be interfered with. Had also tertian type of malaria; responded quickly to quinin.

CASE XV.—John F. Mack, aged twenty-nine years; native of Ireland. Private, Co. E., 7th United States Infantry. Wounded, July 1, 1898, by Mauser ball. Entered first at center of axillary border of scapula; after going just beneath the skin for three inches it emerged and entered the arm at junction of post-axillary fold, going through triceps, humerus and deltoid, emerging just above the deltoid tubercle. The first dressing was applied by comrades, considerable pressure being used to control hemorrhage. The next dressing was applied about an hour after the reception of the wound; it consisted of a surface-dressing to all wounds except wound of exit; here a plain gauze drain was inserted. This dressing was renewed on July 5th; on July 14th was examined, and wound of exit found infected, the infection extending into medulla of bone; was redressed, a plaster cast being applied. On the 17th, on admission, the hand and forearm were markedly edematous and dressings saturated with pus; they were removed and wound thoroughly cleansed, a drainage-tube inserted, and the arm loosely dressed in wire splint. Two days later this dressing was removed and the arm found to be in fairly good condition; edema had disappeared; same dressing applied every second day since admission. Bone was found to be perforated and transversely fractured. It is interesting to note that the three wounds that had superficial dressings applied to them healed rapidly, while the one that was the subject of interference became infected and changed the whole course of the injury.

CASE XVI.—Benjamin J. Hardman, aged twenty-two years; nativity, Alabama. Co. E., 24th Infantry. Wound was probably caused by a large caliber bullet from a sharpshooter in the trees striking the limb while the forearm was fully pronated. Patient received the wound July 1st, and it was dressed July 2d by surgeons at Siboney. The missile entered 7 or 8 cm. above the wrist-joint about one-third way between the outer and inner sides of the right forearm, passing thence downward, inward, and backward (as the arm was pronated), to an exit about 2 cm. above the styloid process of the radius just external to the radial artery. When first seen here, July 16th, the dressings were full of pus. The entrance wound was 3 cm. in diameter and surrounded by unhealthy granulations; the radius seemed to have been blown away (or removed) in part along the course of the missile so as to leave the intact articular portion connected with the shaft by a slender anterior connection. The exit was fully 5 cm. in diameter, covered with unhealthy granulations. A linear eschar running upward 25 cm. shows an incision made to remove splinters of bone. Through-and-through tube-drainage, with iodoform and bichlorid-of-mercury dressing, have been used, pieces of bone removed from time to time, and the wound is now healthy and healing.

CASE XVII. — Michael McCartin, aged twenty-six years; nativity, Ireland. Sergeant, Co. G., 9th Massachusetts Volunteer Infantry. Wounded in finger of right hand, July 2, 1898. Ball first struck dorsal surface, second phalanx, second finger, producing contused wound, then struck second phalanx, index-finger, same hand, producing a compound comminuted fracture, splintering the bone throughout its extent. Was dressed at once and frequently afterward. Wound become infected, sloughs forming. On July 19th had secondary hemorrhage from index-finger. July 20th, finger was amputated at first joint. On August 1st had malarial paroxysm. Quinin treatment successful. August 4th, almost completely healed.

CASE XVIII.—Isom Taylor, aged twenty-seven years. Troop F., 10th Cavalry. During a charge, July 1, 1898, a Mauser bullet entered the exterior aspect of the left forearm 12 cm. below the elbow-crease and, passing upward, backward, and outward, made its exit through the joint just on a level with the superior aspect of the olecranon as the arm was semiflexed. The wound was dressed at the Siboney hospital, and again on the "Olivette." July 16th, he was admitted here, and when dressed a rubber drainage-tube was found which passed 3 cm. into the elbow-joint through the exit wound. A linear eschar 5 cm. long showed incision made by surgeons. Exit wound was 1 cm. in diameter. Pus escaped from tube. Wound of entrance was healthy and was open for 5 cm. X-ray examination shows a separation of the head of the radius from its articulation, and a transverse fracture of the neck of the olecranon. Forearm was half pronated, and only a few degrees toward supination is possible. Wound is progressing very nicely, the local swelling and temperature has disappeared, and the drainage-tube shows little secretion.

CASE XIX.—Shelby F. Ishler, aged twenty-one years; nativity, Illinois. Troop D., 1st Volunteer Cavalry. Wounded, July 1, 1898, in two places: first by Mauser ball in right thigh, ball entering at inner side about middle of shaft of femur and going transversely outward through skin, fascia, and quadriceps. Wound of entrance and exit extremely small and nearly healed on admission. The second and severest wound is in the right forearm, involving the wrist-joint. Wound of entrance near wrist-joint on anterior surface of forearm and between the radius and ulna; this wound is about one inch in diameter. The ball passed backward and upward, producing a compound comminuted fracture of the

radius. The wound of exit on the posterior surface is about two inches in diameter, the structures being contused and disorganized. It will be noted that this wound was produced by a large caliber ball (.45 to .50 cal.), of slow velocity and considerable momentum. It approaches in severity the combined wounds of bone and soft parts produced by the Minie-ball used during the Civil War; fortunately, these wounds are rare. It will be noted also, that twenty-five years ago the severity of this injury would have justified amputation, while to-day, August 2nd, it is almost healed, the deformity is not great and the hand will at least have partial restoration of function.

CASE XX.—Joseph B. Miskewicz, aged twenty-seven years; native of Poland. Co. F., 3rd U. S. Infantry. Wounded, July 1, 1898. Wound of entrance on flexor surface of forearm, about four inches above wrist-joint; wound of exit on radial side of extensor surface of forearm, about one inch nearer wrist-joint. Wound produced by round or large caliber conical ball; wound of entrance about one inch in diameter; wound of exit about same size. Produced compound comminuted fracture of radius. First-aid dressing applied in one-half hour. The next day, July 2nd, anesthetic was given, wound of exit enlarged, an incision about five inches in length along radius, fragments of bone were removed, and several inches of radius resected. Wound stitched. Became infected around wound of exit and entrance, and suppurated until admission. Wound cleaned and dressed. Next day wound was considerably inflamed and hand edematous from use of iodoform; sterile dressing applied, and since then healing has been rapid.

CASE XXI.—William B. Kronskop, aged twenty-five years; nativity, Ohio. Co. F., 17th U. S. Infantry. Wounded, July 2, 1898, by Mauser ball; hemorrhage was slight; first-aid dressing applied almost immediately afterward; has been dressed at regular intervals since. Wound of entrance two and one-half inches below acromial extremity of clavicle on anterior surface of arm; wound of exit midway between, and four inches above, condyles of humerus posteriorly. Both wounds are the same size, being about one-quarter of an inch in diameter, and healed uninterruptedly. Course of ball was through skin and fascia, deltoid and triceps muscles.

CASE XXII.—William Apitz, aged twenty-five years; nativity, Kansas. Co. C., 6th Infantry. Wounded, July 1, 1898. Missile seems to have entered palm of hand, causing severe laceration and necessitating amputation of index and middle finger, which was done by the surgeon of the regiment. July 16th, some pain; wound infected; dressing changed; wound cleansed and packed with iodoform gauze. July 20th, considerable pain. July 21st, wound cleansed with peroxid of hydrogen; dressed with iodoform gauze, and hand laid on a splint; dressing changed at intervals of two days. July 31st, improving.

CASE XXIII.—Justa Mustelier, aged forty-two years. Sergeant, Cuban Volunteers. Right forearm was shattered and severed in its lower portion by an American shell, July 23, 1898, and a modified skin-flap amputation done in its upper-third, June 25th, by the surgeon of the United States steamship "Olivette." When admitted, July 16, there was slight local temperature and some pain, both of which disappeared after wet antiseptic dressing. July 19th, patient had pains in abdomen, headache, and a temperature of 40° C. (104° F.). Plasmodium found in his blood, and cathartic and quinin given. Temperature has since been about normal. July 26th, fluctuation and pain in joint. By small incision evacuated 25 centimeters of pus, and removed a silk ligature, since which time the wound has been healing nicely.

CASE XXIV.—John Hendricks, aged twenty-three years; nativity, Indiana. Co. D., 16th United States Infantry. Wounded by Mauser ball on July 1, 1898. The wound of entrance is small, situated a half-inch below Pouparts ligament, and just external to the femoral artery. Wound of exit posteriorly, on a plane horizontal with entrance just above gluteal crease, and about center of buttock. It is somewhat smaller than the wound of entrance, but did not heal so rapidly. The course of the ball was through the hip-joint; a single perforating fracture must have been produced, as there were no symptoms referable to bone lesion after tenderness of the wound had disappeared. On July 2nd an area of hyperesthesia developed over the area innervated by the middle and internal cutaneous branches of the anterior crural nerve. This was so intense that the weight of a sheet caused burning pain; could bear no weight on this leg on admission. On July 21st, gentle massage, and continued, with daily improvement until now, all hyperesthesia has disappeared and the patient walks with comparative ease.

CASE XXV. — Michael O'Mealy, aged thirty-eight years; nativity, Ireland. Private, Co. A., 21st Infantry. Wounded, July 2, 1898, in left buttock; ball apparently still in body; no point of exit; sitting up; slight pain. July 20, 1898, no pain, but some spasm of muscles of leg. 21st, marked spasms of muscles of thigh, painful contractions requiring hypodermic of morphin. 22nd, some fever; feels weak; said he felt as if something had given way or broken about his hip. Evening, spasmodic pain more marked; profuse perspiration. 23rd, restless during the night; temperature this A.M. 29.7° C. (103.4 F.). Pain most marked along course of sciatic nerve, and internal pudic at greater sciatic notch; no tenderness of spine. 24th, spasmodic and painful contraction of leg muscles during the night, requiring large doses of anodyne; growing weaker; temperature, 38° C. (100.4° F.); pulse, 120, Wound apparently in good condition. Probe enters to a depth of 1¼ inches only, and directed downward and inward toward tuberosity of ischium. Evening, somewhat better, but the spasms are still marked. Later, temperature, 40.4° C.; pulse, 134, and spasms more severe. 9.15 P.M., incision made down to sciatic nerve, between tuberosity of ischium and great trochanter, where pressure seemed to be, but bullet was not found; recovered from anesthetic fairly well, but spasms soon returned as severe as they were before. 25th, 4.30 P.M., unconscious; temperature, 41° C.; thready pulse. Died at 5.40 A.M. Post-mortem examination ten hours after death. Large blister noticed at

left heel, above os calcis. A considerable quantity of brownish fluid passing from nose and mouth. Upon incision along the course of the wound, the ball, shrapnel, was found about 2½ inches below the skin, in the gluteus maximus muscle, a considerable distance removed from the nerve trunks. There was some discoloration of the muscular tissue in which the ball was embedded, and slight moisture of the part, but no suppuration. A piece of blue cloth, evidently from the uniform trousers, carried in by the bullet was removed from the wound. The ball was flattened to some extent on one side. Further examination showed marked congestion of the psoas muscle, and after removing the intestines from the abdominal cavity the congestion was found to extend the whole length of the muscle, and the muscle was completely ruptured diagonally across its fibers, at a point beginning at the second lumbar vertebra.

CASE XXVI. — Peter O'Connor, aged twenty-five years; nativity, Ireland. Co. D., 8th Infantry. Wounded, July 1, 1898. Bullet entered right foot 3 cm. below inner malleolus, passing downward and forward and out at middle line of sole, between metatarsal bones. Wound healed when admitted, July 16, 1898, but patient complained of chills or chilliness, and said he had been sick for a number of days. Temperature, 39° C. (103.3° F.); pulse, 104. Fever continued. Blood examined for malaria plasmodia; none found. 19th, complained of some pain in belly; no diarrhea; tongue coated; spleen enlarged. 20th, bowels moved three times to-day; stools of yellowish-gray color. 22nd, marked diarrhea; some cough, bronchitis; typhoid condition. 27th, bloody stools. 28th, another hemorrhage from bowels. 29th, delirious; another hemorrhage; pulse weak. Temperature at 10 A.M., 40.6° C.; pulse, 156. Extremities cold; failing rapidly. Died at 1.20 P.M.

CASE XXVII.—Martin Crowley, aged twenty-two years; nativity, Ireland. Co. D., 7th Infantry. Wounded, July 1, 1898. Bullet entered right hip about four inches below superior spinous process of ilium, outer side, and passed diagonally downward but inward to inner side of thigh, upper third. July 16th, wounds of entrance and exit in fairly good condition. No pain. July 21st, some pain in thigh and further examination showed a slight swelling; pulsation, characteristic thrill, and bruit of aneurism; probably communication between femoral artery and vein. July 26th, wounds healed. July 27th, complained of diarrhea and later in day had a chill, followed by fever and malaria, for which quinin was given, with diluted nitromuriatic acid. July 28th, less fever; quinin continued. July 29th, better; temperature and pulse normal. August 3d, doing well; aneurism continues about the same.

CASE XXVIII.—Tobias Wunder, aged twenty-nine years; nativity, Germany. Sergeant, Co. G., 6th United States Infantry. Wounded in calf of the left leg, the ball going through the leg transversely and penetrating the skin and superficial fascia for about three inches. The wound became infected throughout its extent, an abscess forming. This was opened on July 18th and dressed antiseptically. Continued to discharge pus until August 1st, when the whole course of the ball was laid open, the necrotic tissue removed, and wound placed in condition to heal by granulation.

CASE XXIX.—Henry Brightwell, aged twenty-three years; nativity, Georgia. Co. G., 25th Infantry. While lying down during the fight of July 1st he was struck by a missile which caused a ragged, lacerated wound upon the outer side of the left thigh, five or six cm. below the trochanter major. No wound of exit. When he was admitted the wound was about four cm. long and suppurating freely, and he complained of pain in his outer thigh muscles when he walked. The X-ray revealed a bullet about fifteen cm. above the external tuberosity of the femur. On July 30th pain had become worse and localized, and a small incision was made, until the fascia lata was opened, through which was removed a bullet about the size and shape of an incisor tooth. A small piece of the steel jacket still clung to the wedge-shaped front of the lead bullet. Both wounds are doing well and the patient has no trouble in walking.

CASE XXX.—Winifred Munson, aged twenty-one years; native of Kentucky. Co. C., 6th Infantry. While charging El Caney, July 1, 1898, he was struck by a missile, which entered the sternum to the left of the midline, about the junction of the manubrium and gladiolus, making a clean, round hole without comminution, passing thence backward and to the right to an exit just below the neck of the scapula, the latter being a lacerated wound two centimeters in diameter. He advanced fifty yards and then sat down. A comrade removed his clothes, and blood came in "spurts" from the front, and continuously from the exit wound, and blood poured from his mouth. A first-aid bandage stopped external bleeding, after which he was neglected, being without food or attention until removal, thirty-six hours after, to the Division Hospital. For several days he spit fresh blood when he coughed, and this was followed by clotted blood. July 16th, before admission, he had a severe hemorrhage, losing fully 7 ounces. When admitted, July 16th, the entrance wound was about healed, and the exit was covered with granulations. His temperature was normal, but a cough without expectoration troubled him. The lung seemed to have only a slight diminution in function. On the 21st his temperature rose, and until August 1st remained between 38° and 39° C. (100.5°–102.2° F.); his respirations were rapid and painful, and there was dulness in the middle lobe of the right lung. About August 1st his temperature and other symptoms disappeared, and he improved. There appeared a pleuritic effusion, which reached the fifth rib in front and the inferior angle of the scapula behind.

CASE XXXI.—John K. Emery, aged twenty-three years; native of Georgia. Co. F., 13th United States Infantry. Wounded, July 1, 1898. Wound of entrance through the ensiform appendix of sternum; of exit in eighth interspace between anterior and mid-axillary lines. Course of wound was through the right lung. The injury produced hemoptysis, which lasted several days. Wounds of entrance and exit small, and healed rapidly. On admission he complained of considerable pain over

wound; examination showed slight pleurisy; side was strapped and condition improved. Since then has been steadily improving.

CASE XXXII.—Edward Culver; native of the Indian Territory. Troop A., 1st Volunteer Cavalry. Wounded by Mauser ball, on June 24, 1898. The ball entered the chest in fourth interspace in anterior axillary line of left side. No wound of exit. X-ray shows the ball lying across the 4th and 5th ribs of opposite side about two inches from vertebra. Both lungs were perforated, the ball going immediately behind the heart. The wound of entrance was about one inch in diameter, the ball having entered flatwise. Hemorrhage was quite profuse. Hemoptysis began at once and was also quite profuse; continued about fifteen days. Has been walking around since July 4th. Wound of entrance was packed with gauze; it granulated quickly and was completely healed on August 1st.

CASE XXXIII.—William F. Brewer, aged 26 years; native of Ohio. Company E., 17th U. S. Infantry. Concussion of brain and spinal cord by explosion of shell. Was making a charge when there was a violent explosion of a shell a few feet to left; was rendered unconscious and remained so about three hours. On regaining consciousness attempted to rise but vomited blood and contents of stomach, and could not support himself on left leg. Was carried to hospital at Siboney, and then sent North on the "Olivette." Had considerable pain all the time. Examination shows area of tenderness over lumbar region of cord and muscles of thigh and gluteal. Was confined to bed but improved slowly. Potassium iodid in 1-grain doses had little or no affect. Actual cautery was applied in several locations with great success, the function of leg being almost completely restored in about a week. Massage was painful at first but later was of some assistance in treatment.

THE WOUNDED BEFORE SANTIAGO.

[Special Correspondence of the MEDICAL NEWS.]

IN CAMP BEFORE SANTIAGO DE CUBA,
July 31, 1898.

ON the 25th of June last the Army landed at Baiquiri. Since that date the rapid succession of events, the fatigues and privations of an active campaign under extraordinary conditions have prevented literary work. From the date of landing until the fall of the city of Santiago de Cuba the troops were under a continuous strain of marching and fighting. For this labor the protracted delays after embarkation at Tampa had, I believe, to a considerable degree unfitted them. Two weeks on shipboard, on transports hastily improvised, had softened the muscles of the men, the majority of whom went to sea for the first time in their lives. But although the flesh had been somewhat weakened the spirit and temper of the troops had not been appreciably impaired. Immediately after the landing of the 2d Division the march on Santiago began. The route, a mere bridle-path overgrown with a tangle of luxuriant vegetation, led around the coast hills westward through the small harbor town of Siboney, which fell into our hands on the following day without a struggle. The Spanish garrison, surprised, lost no time in making a hurried retreat leaving much valuable property to fall into the hands of the Americans. On the march through the jungle many of the men fell out of ranks from heat and the overpowering sultriness of the air. No casualties occurred, however, as the men so disabled straggled into camp later in the cool night air.

On the following day the cavalry division, dismounted, took the lead, and first encountered the Spanish in considerable force posted on a hill overlooking a rocky cañon through which our men were advancing. Here the sharp action of San Quesada followed in which the regiment of "Rough Riders" and a brigade of regular cavalry suffered loss. The wounded in this battle received prompt first-aid treatment, often under fire, by their regimental medical officers, and, on the same day, were carried back to Siboney on litters by relays of troopers, and during the night the greater number of them were transferred from the extemporized receiving hospital on the beach to the transports designated to receive them. This proved to be a labor of difficulty, as, there being no wharf, all landings had to be effected by beaching the ship's cutters employed in embarkation. As in this action the enemy did not use artillery, the wounds of our men were all inflicted by the jacketed bullet of the Mauser rifle, a missile of .26 caliber, which caused small, clean-cut injuries without laceration or crushing of bone. Three days after the application of the Esmarch dressing to the slighter injuries, I am informed that the greater number of them maintained an aseptic condition. As regimental surgeons had taken the field without their medical and surgical chests no major operations could be done in the lines. After the transfer to the transport, where all facilities had been provided, this work was promptly begun, and permanent dressings applied. The number of the wounded requiring surgical aid footed up about one hundred. Litters for removing the wounded from the field in the absence of the regulation stretcher were built from saplings bound with strips of canvas over which shelter-tents and blankets had been stretched effectively. A man with a perforation of the liver and kidney thus transported reached the hospital-ship without further injury, a journey of five miles or thereabout. The prompt aid rendered the wounded on this occasion, and in general, their immediate removal from the battle-ground, doubtless prevented many fatalities. Of sixteen men sent down from the regular brigade on litters, including the one referred to above, all had survived at the date of their departure from the harbor for a Northern port.

KAPPA.

MEDICAL PROGRESS.

Volvulus of the Small Intestine.—THORBURN (*Med. Chronicle*, June, 1898) says that volvulus of the small intestine may not be so rare an occurrence as is generally supposed. The ease with which an intestinal coil can turn on itself would doubtless often produce the symptoms of strangulation were it not for the fact that it can in most instances untwist with equal facility. Treves has adopted the hypothesis of a temporary and spontaneously

reduced volvulus of the small intestine to explain those cases of acute intestinal obstruction, occasionally recurrent, which recover without surgical interference, but he has had no ocular demonstration of the accuracy of this supposition. Thorburn was called to operate upon a patient who suffered from acute intestinal obstruction with great prostration. He found just such an acute volvulus of the small intestine as Treves has presupposed, and it was untwisted almost without any manipulation. A stool followed this brief operation by about three hours, but unfortunately the patient did not survive more than nine hours. In two other cases mentioned by the writer there was gangrene of the small intestine without any assignable cause, and these were considered by him to be cases of volvulus. One of the patients died after an operation, and the other without operative effort having been made. All of the patients were men, and in all cases there was great prostration, and great pain.

Are There Germs in the Normal Puerperal Uterus?—BURCKHARDT (*Centralbl. f. Gynek.*, July 2, 1898) having noticed how often in a normal convalescence from labor the cervix was still open on the tenth or twelfth day, and that there was also at this time a yellowish-brown discharge mixed with bits of tissue, made a series of examinations to determine the bacterial condition of the puerperal organ. He found that the cervix was always open enough to admit the finger as late as the twelfth day, and that if it appeared not to be so, the constriction was apparent, not real, and disappeared if the body of the uterus was lifted up straight. The inner surface of the uterus he found smooth. It felt like a granulating wound, while the placental attachment was easily made out by its greater roughness. Examination of the fluid taken from the upper portion of the uterine cavity showed it to contain germs in thirteen out of fourteen cases. These were all patients who were making a good recovery from labor, without fever or other abnormal symptom. "The puerperal uterus," says this writer in conclusion, "must be looked upon as an open wound. In the first days after labor it is free from germs, but little by little they spread over its surface as they do over that of every other open wound, the cervix offering little resistance to their progress. An internal os which readily admits the finger can hardly be said to oppose the passage of a microbe. But at this period the condition of the inner surface of the uterus is such that no evil follows this microbial growth except under adverse circumstances, such as the retention of secretion."

Surgical Treatment of Duodenal Ulcers.—WANACH (*Arch. f. klin. Chirurg.*, vol. 56, p. 425) says that the perforation of a duodenal ulcer at a place where the gut is not covered by peritoneum gives rise to a retroperitoneal abscess which may remain for a long time unobserved. The purulent collection may extend upward to the neck, or downward to the inguinal region, breaking in the same situation as the usual psoas abscess. The favorite site for the perforation of such an ulcer, however, is the anterior wall of the first horizontal portion of the duodenum. The result is either an encapsulated or a general peritonitis. The encapsulation of such a peritonitis is not so favorable as the same process in other places, since the abscess does not usually stop there but goes on to the formation of a subphrenic abscess, which either before or after operation usually results in the death of the patient.

If a general peritonitis follows the rupture of the ulcer the determination of the origin of the inflammation is generally difficult. The usual mistakes are those of attributing it to an ulcer of the stomach, or to appendicitis, or of setting it down as an idiopathic peritonitis. If found and closed there is a good chance for the patient to recover, and the operator should, therefore, use all diligence to accomplish this end in obscure cases of peritonitis. Wanach mentions a case of his own in which he opened the abdomen supposing that he had to do with an appendicitis. Upon learning his mistake the real perforation in the duodenum was located, and closed by serous suture of the intestine and mesentery. The patient recovered.

Treatment of the Stump of the Appendix.—HAGGARD (*Jour. Am. Med. Assoc.*, June 4, 1898) finds that there is good reason for abandoning entirely the original practice of ligating the stump of the appendix. He says that it should not be treated as if it were a pedicle, but as if one were dealing with the end of the intestine, as in a lateral anastomosis. He therefore follows the practice of Deaver, which is applicable in cases in which the appendix is necrotic, as well as in those in which it is sound, and which is especially useful in cases in which it is changed into a dense cord. The details of the procedure are thus given: "After freeing the appendix from adhesions and meso-appendix, the cecum is stripped of its contents and grasped between the fingers and thumb of the left hand; the appendix being held up with forceps by an assistant, is then cut off flush with the colon. The rent at the site of its former junction is united by continuous Lembert sutures, just as in a gunshot or stab wound of the intestines, while the cecum is still held securely with the left hand. The sutures may be disposed in two layers, the first uniting the edges of the wound, the second approximating the peritoneal covering of the cecum over it."

Hernia of the Ovary.—BROWNE (*Maryland Med. Jour.*, July 9, 1898) reports two cases of hernia of the ovary. Both were inguinal in situation. Both patients had borne a number of children. In one case the ovary was irreducible, and the diagnosis was not made until the dragging of the cornu of the uterus into the opening of the hernial sac caused strangulation and rendered an operation necessary. In the other case the ovary was reducible, and the diagnosis was correctly made, but a truss failed to keep the displaced organ in position and operation was resorted to for the relief of pain. Laparotomy was performed upon both patients, and both recovered. The ovary which had produced strangulation was removed. The other was reduced into the abdominal cavity, and gave the patient no further trouble.

THE MEDICAL NEWS.

A WEEKLY JOURNAL

OF MEDICAL SCIENCE.

COMMUNICATIONS are invited from all parts of the world. Original articles contributed *exclusively* to THE MEDICAL NEWS will after publication be liberally paid for (accounts being rendered quarterly), or 250 reprints will be furnished in place of other remuneration. When necessary to elucidate the text, illustrations will be engraved from drawings or photographs furnished by the author. Manuscripts should be typewritten.

Address the Editor: J. RIDDLE GOFFE, M.D.,
No. 111 FIFTH AVENUE (corner of 18th St.), NEW YORK.

Subscription Price, including postage in U. S. and Canada.

PER ANNUM IN ADVANCE $4.00
SINGLE COPIES 10
WITH THE AMERICAN JOURNAL OF THE MEDICAL SCIENCES, PER ANNUM 7.50

Subscriptions may begin at any date. The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned. When neither is accessible, remittances may be made, at the risk of the publishers, by forwarding in *registered* letters.

LEA BROTHERS & CO.,
No. 111 FIFTH AVENUE (corner of 18th St.), NEW YORK,
AND NOS. 706, 708 & 710 SANSOM ST., PHILADELPHIA.

SATURDAY, AUGUST 13, 1898.

THE ARMY MEDICAL INVESTIGATION A FARCE.

GREAT chagrin and keen disappointment are being felt by all interested in the reputation of the medical arm of the service by the autocratic way in which the head of the War Department has dismissed the case of the transports "Seneca" and "Concho" which recently brought sick and wounded soldiers home from Cuba in a condition of wretchedness and neglect. Serious charges of incompetency and neglect of duty by the officers in charge of the commissary and medical supplies of the army of invasion at Santiago have also been made and the incompetency there shown has been charged in some quarters to lack of administrative ability on the part of the Surgeon-General of the army. In answer to these charges Surgeon-General Sternberg declares that he is not responsible and to vindicate himself and his subordinates demanded of the War Department an official investigation. This demand of General Sternberg has been met by the cavalier statement of the Secretary of War that in the transportation of the troops and in the campaign against Santiago there was no neglect and no incompetency; that hunger, sickness, and suffering are incidents of war and whatever has happened was due to unforseen circumstances and no one is to be held responsible.

Is no one responsible for leaving the medical supplies at Tampa when the transports sailed for Cuba? Is no one responsible for the fact that when the supplies did arrive off the Cuban coast they were not landed but carried back to Florida on the return cruise? Is no one responsible for the fact that while our soldiers on the fighting-line were without food and the ordinary comforts of a soldier's life a whole shipload of supplies was left rotting in the hold of a ship at anchor off the coast? Is no one responsible for the wholly unnecessary suffering, want, and hunger experienced by our wounded soldiers, so graphically described by our special correspondent in the MEDICAL NEWS of last week? Does the Secretary of War think for one moment that such flippant explanations explain anything, or satisfy the indignant but long suffering friends of the soldiers that these horrors will not be repeated? No.

Does he imagine that the thin coat of whitewash applied by his investigator Heyl over the "Concho" case can cover up the flat contradiction therein contained of well-attested facts, the avoidance of other charges or the implied confession of it all when he asserts that these abuses will not occur again?

Is General Sternberg going to be satisfied with this farcical procedure? We hope not—he owes it to himself, to his department, and to the army of faithful and efficient officers in the medical arm of the service that no part of this responsibility shall be allowed unjustly to rest upon the medical officers. The whole truth should be brought to light and responsibility fixed by a prompt, impartial, and searching investigation.

THE CAMP AT MONTAUK AND QUARANTINE.

THANKS to the harmonious cooperation of the Marine Hospital Service, the State Quarantine, and the Medical Department of the Army, a well-devised and systematic arrangement for preventing an invasion of yellow fever has thus far been entirely successful. Since the prompt and complete suppression by the Marine Hospital Service of the outbreak of the disease at McHenry, Miss., the weekly bulletins have announced that no new cases have appeared at any point within our borders. The number

of soldiers and civilians returning from Cuba has been comparatively few, and the stringent and impartial quarantine rules have been efficient in protecting every point of possible invasion. The bringing home of General Shafter's entire army, however, forces the yellow-fever question into unexpected prominence and necessitates a readjustment of quarantine rules to meet the new situation. Yellow fever, as existing in the army at Santiago, was at first extremely mild and the mortality slight, but in the daily reports from the front it is noticeable that the number of deaths from this cause is steadily on the increase, thus confirming the opinion of experts that the disease would become more fatal as the season advanced. It is certainly inevitable, in spite of the greatest care and supervision on the part of the inspection officers at the point of departure, that yellow fever will accompany this army in its removal to its northern camp. To detain the crowded transports at New York quarantine would not only be an act of cruelty but suicidal in the highest degree. It has, therefore, been decided by the Government to declare the camp at Montauk a quarantine detention-camp, and to send the transports directly there instead of allowing them to enter New York harbor. This decision is eminently wise, and dictated by every sentiment of humanity and consideration for the afflicted soldiers.

Previous to the issuance of the orders to bring General Shafter's army home, the cavalry regiments at Tampa and Fernandina had been commanded to move at once to Montauk Point. This order was promptly executed, and the troops were landed at their destination. The situation thus presented is a serious one, and the injustice of placing in one camp soldiers who have not been subjected to infection, and those who have, is apparent to the most casual observer. It can be safely managed, however, with proper attention to details. With sufficient distance, and an impassable barrier between the two divisions of the camp, reinforced by strict quarantine regulations, comparative safety may be secured. The handling and the storing of supplies unloaded from trains should be accomplished by a force detailed for this special work, and kept carefully free from infection. Supplies sent to the patients in the hospital camp should be distributed in packages, the containers of which can be promptly destroyed or easily disinfected. This refers to paper wrappers, potato-bags, milk cans, etc., etc.

Whatever arrangements the authorities may make to prevent the spread of infectious diseases among the soldiers confined in this camp, one thing is certain —that quarantine regulations should be sufficiently stringent to prevent their extension beyond the boundaries of the camp. The army at Santiago was inoculated with yellow fever by criminally allowing the refugees to intermingle with the soldiers and infect their ambulances and commissary wagons. The danger now is that as eager a horde of friends may invade the camp and kindle a widespread epidemic by bearing to their respective homes the germs of disease. The quarantine regulations for this camp cannot be too stringent for the safety of the country, and should be administered with the greatest circumspection and impartiality to the last detail.

It is a gratifying assurance to know that the Marine Hospital Service, whose officers have been especially trained in quarantine matters, are to have charge of the quarantine regulations connected with the transportation of the troops. Not only is a careful inspection to be maintained at the point of embarkation for the purpose of separating from the main body of the army cases of infection, but an officer of the Marine Hospital Service will accompany each ship for the purpose of assisting in isolating at once any case which may break out during the voyage, and personally direct the management of these cases upon arrival at destination, as well as to certify to the healthfulness of the ship. These officers aboard ship will have absolute supervision and medical control of the ship's crew, and lend such assistance to the army surgeon in charge as may be desired.

Administrative ability of the highest order will be required to efficiently enforce the quarantine regulations at Montauk. The management of this whole affair and the steps taken to secure the country against infection from this center of dissemination will be watched with a jealous and critical eye.

MODERN SURGERY IN WAR.

THE *British Medical Journal*, in a recent editorial upon this subject, announces the fact that it has been found possible to bring home some of the wounded troops from Egypt without changing the aseptic

dressings applied when the wounds were first treated. It regards this, and justly so, as a triumph of good surgery and good organization, and it proves that military surgery has shared to the full in the remarkable advances in surgical ideals and methods which the present generation has witnessed.

The editor then briefly reviews the advance in surgery from the former ideal, when it was the wish and gratification of the surgeon to have the dressings rapidly soaked with discharges from the wound, in the form of what was then regarded as "laudable pus." In the next stage of advancement chemical antiseptics were freely used for the purpose of destroying all forms of infective life as well as in directly irritating the wound to more abundant secretion. At the present time the highest aim of wound-treatment is to see that Nature is left to herself. As little as possible is done to wounds, whether by antiseptics or by manipulation, with the intent of securing a maximum of rest and a minimum of pain and fright to the patient. If by this means the wound is left clean and at rest, Nature will carry on the healing process to a successful issue.

In order that these principles of surgery may be put in force in the present campaign, the American soldiers were supplied with simple antiseptic bandages, to be applied at once to whatever wounds were received. It was hoped that this precaution, taken to prevent the access of bacteria and so preserve the wound in an aseptic condition, provided the missile or weapon did not carry infecting germs and distribute them in its course, might prove efficient in obviating the necessity for further surgical interference. The small-bore projectiles with their high velocity and clean-cut holes make simpler wounds and permit of this treatment reaching such a degree of perfection as to obviate the necessity of the wound being dressed for many succeeding days, and frequently to permit of its complete cicatrization without molestation. How far the application of this principle in the present war has prove successful, we shall soon learn. The inadequate supply of first dressings and the impossibility of securing complete rest to wounded parts by reason of the inefficient ambulance service due to impassible roads have marred greatly the value of observations along this line of enquiry.

The two cases of injury which occurred on board the flagship "New York" at the bombardment of San Juan, are impressive examples of the success of this treatment. In one case the bony structures of the elbow-joint were completely carried away by a fragment of shell, and in the second there was a compound comminuted fracture of the left femur. Both cases were promptly dressed asepticly by the fleet-surgeon, and complete rest secured for the members by the application of plaster-of-Paris dressings. In this condition the men were transferred to the ambulance-ship "Solace" and later placed in the naval hospital at the Brooklyn Navy Yard. Up to the seventh day the pulse, temperature, and general condition indicated that the healing process was going on satisfactorily, and the original dressings had not been molested.

INTESTINAL AUTO-INTOXICATION.

INTESTINAL auto-intoxication is a surgical condition which has been for the most part relegated to the field of internal medicine, and oftentimes in the conduct of his operative cases the surgeon, having placed it in this category, dismisses all thought of it from his mind. The principle of intestinal intoxication is familiar enough, and is regularly referred to by the bacteriologist, the pathologist, and the lecturer in surgery in illustrating an intoxication. Yet the surgeon allows its application in surgery to end here, and thereby may fail to bring under this classification a certain recent laparotomy case that is doing badly, a case where the pulse is still up on the third day, the temperature has reached 100° F., the abdomen is somewhat sensitive, the patient continues to vomit her food, and the bowels do not move. The post-mortem findings are slight, yet a reluctant diagnosis of peritonitis is made as a cause of death, and the surgeon is totally at a loss to know why his patient should have had peritonitis.

His patient is suffering from an intestinal auto-intoxication which passes over into a true sepsis, and the poison which overwhelms such a patient is not from without but from within the intestine itself. Secondary to a persistent reflex paralysis of the motor function of the intestine by shock and to an alteration in the intestinal function, there results both an increased production and a failure to eliminate toxic materials. Consequently the leucomains and the ptomain, or toxalbumin, products of the

putrefactive bacteria are absorbed into the circulation and transported to distant parts to overwhelm the system and produce the constitutional symptoms that have already been mentioned.

The intestine is often the seat of such a disturbed metabolic process apart from any operative procedure. Excretory products poisonous to the system are regularly formed in the intestine, yet normal, regular action of the bowels carries this away as excrementitious material without damage to the system. Should the regular excretion of this material cease, as in constipation or in intestinal indigestion, it is absorbed and gives rise to the usual symptoms. In post-operative enterosepsis, however, the intestine has not been satisfactorily emptied and added to the mere retention of toxic materials regularly formed, there is a paralyzed function, with a consequent increase in fermentative and putrefactive decomposition, a lessened intestinal antisepsis, and an increased absorption. The intoxication soon passes over into a true sepsis, and the patient's history is short.

The condition is recognized by most surgeons as a grave one when it arises, but the reasoning as to its origin seems to be bad, and refuge is too often taken in the comprehensive diagnosis of peritonitis. When the condition is better understood more care will be given to the preparation of the gastro-intestinal tract previous to operation, and less reliance placed upon the single cathartic. It is surprising that a subject of such importance should have no space in the text-books on surgery, and should appear so seldom in periodic literature.

ECHOES AND NEWS.

Sir William Broadbent Honored. — The Queen has appointed Sir William Broadbent, as one of her Majesty's Physicians Extraordinary, in place of the late Sir Richard Quain.

Dr. Voisin Dead.—The death of Dr. Auguste Voisin, Paris, physician to the Salpétrière Hospital, is reported. Dr. Voisin had long been one of the foremost authorities on hypnotism and mental diseases.

Memorial to Mr. Ernest Hart.—The Council of the British Medical Association has decided to found as a memorial of the late Mr. Ernest Hart, a scholarship, to be called the Ernest Hart Scholarship for Preventive Medicine. The scholarship, which will be of the value of $1000, will be tenable for two years.

Medical and Surgical Relief at Santiago.—It is reported from Tampa that the steamship "Michigan" sailed August 1st direct for Santiago. She carried twenty-five army surgeons, and fifty Red-Cross nurses for the hospitals. She had also on board 150 tons of fresh beef in addition to a large cargo of general provisions for the army.

House Cleaning in Santiago.—Under the direction of Governor Wood, the cleaning of the city of Santiago is being pushed with great energy. Before the door of every house lies a great pile of rubbish which has been dumped into the street awaiting transportation and final incineration. More than two hundred carts are employed in transporting the dirt and refuse removed from the houses.

The Disinfection of Mail at Siboney, Cuba.—Louis Kempner, acting postal agent at Siboney, Cuba, announces that when despatching mail to the States, he is obliged to certify to Major La Garde that fumigation of all pouches and sacks has been effected in accordance with the requirements agreed upon by Colonel Greenleaf, chief surgeon, U. S. A., Dr. John Guiteras, Major La Garde, and himself.

Sick and Wounded Soldiers Granted Furloughs.—The Secretary of War has directed that sick and wounded soldiers sent to the hospitals shall, when able to travel, be granted by the attending surgeon one-month's furlough and transportation to their homes. Experience in the Civil War demonstrated the fact that soldiers thus granted furloughs convalesce much more rapidly than when retained in hospital or confined in camp.

The Hospital Ship "Missouri."—Through the agency of Miss Helen M. Gould, the hospital ship "Missouri" will be supplied by the War Relief Association with four electric kitchens. This device will avoid the heat which usually comes from the ship's galley and thus contribute to the comfort of the sick and wounded. To avoid dampness on the ship, each deck will be covered with a coat of asphalt three-quarters of an inch thick.

A Medical Millionaire.—News has recently come from Paris that Baron Henri de Rothschild, a member of the Paris branch of the famous financial family, has passed with distinction his final examination for the degree of Doctor of Medicine. M. de Rothschild's graduation thesis is founded upon observations made in a private dispensary, which he established for the treatment of infants, and was awarded a silver medal by the Academy of Medicine.

Patent Medicine for Soldiers.—An enterprising patent-medicine vender in Brooklyn, N. Y., conceived the idea of distributing through the chain-letter scheme, a wholesale supply of his concoction to the soldiers at Santiago. The first links of the chain of letters requested each recipient to send 10 cents wrapped in tissue paper to pay for 10-cents' worth of the greatly needed medicine, and to make and forward to two other benevolent persons two copies of the letter. The medicine was to be distributed by the Red-Cross nurses, and the International Com-

mittee of the Y. M. C. A., although neither organization was privy to the scheme. Owing to the prompt action of the Brooklyn Bureau of Charities, this fraudulent enterprise was nipped in the bud.

Yellow Fever and Quarantine.—No case of yellow fever has as yet entered any of the ports of the United States, and it is positively announced by quarantine officials that no alarm need be felt lest fever may creep in, in bringing the sick and convalescent soldiers from Santiago. All transports bringing soldiers from Cuba are subject to the same quarantine regulations as other ships, and the pilots and masters of vessels are forbidden to dock their boats or drop anchor without a quarantine certificate. In evidence of this, five blasts of the whistle must be given before docking or dropping anchor, as a signal that the certificate is in possession of the master of the vessel. Moreover, the Marine Hospital Service has stationed at Cuban ports inspectors to certify to the fact that every ship leaving port is free from infection.

The Danger from Cuban Cemeteries.—It seems that those who die in Cuba are destined to secure the peace and quiet of sepulture only so long as they have paid for the niche in which they are destined to be deposited. "Rest in peace" depends upon the affection and willingness of the dead person's friends to pay another's rent in advance. When the year expires, unless the yearly rental is forthcoming, the coffin is unceremoniously taken out and dumped on a convenient field without the sacred compo. The walls of these niches become masses of germ-laden masonry alternately warmed by the tropical sunshine, and kept moist by tropical dews. In other words, they are most favorably culture-beds, and containing as they do the foul germs of yellow fever, become when disturbed sources of widespread infection. The disinterring of the dead is not allowed in Jamaica. Four years ago, in one of the West-Indian islands belonging to Great Britain, part of an old cemetery was dug up which contained the graves of many yellow-fever victims. Yellow fever had been absent from that island for years, but immediately after this it appeared and made many victims.

Tax on Proprietary Articles.—On July 7th the Internal Revenue Bureau prepared a circular for the instruction of collectors regarding the use of stamps required by schedule B of the War Revenue law. Its publication was suspended at that time to permit manufacturers of pharmaceutical preparations to present arguments why, under the last clause of section 20 of the act, there should be a modification of the rulings relating to those preparations. The circular was issued July 27th, and after quoting the part of section 20 referred to, says:

"This is undoubtedly entitled to peculiar weight as a legislative interpretation of that part of schedule B which relates to medicinal articles. This office construes said clause as follows: 'Any medicinal article which is compounded by any formula, published or unpublished,' will be held taxable under schedule B, act of June 13, 1898, when it is:

"(1) Put up in style or manner similar to that of patent, trade-mark or proprietary medicines in general; or

"(2) Advertised on the package or otherwise as (A) remedies or specifics for any ailments, (B) as having any special claim to merit, (C) as having any peculiar advantage in mode of preparation, quality, use, or effect."

Various exceptions are detailed, and the following recapitulation of the ruling is given:

"All medicinal proprietary articles and preparations must be stamped. All medicinal patent articles and preparations must be stamped. All medicinal trade-mark articles and preparations must be stamped. All medicinal articles compounded by any formula, published or unpublished, which are put up in a style or manner similar to that of patent, trade-mark, or proprietary medicines in general, or which are advertised on the package or otherwise as remedies or specifics for any ailment, or as having any special claim to merit, or to any peculiar advantage in mode of preparation, quality, use, or effect, must be stamped.

"All medicinal articles or compositions whatsoever, which, if prepared by any formula, published or unpublished, or held out to recommend to the public by the makers or venders or proprietors thereof as proprietary articles or preparations, or as remedies or specifics for any disease or diseases or affecton whatever affecting the human or animal body, must be stamped."

CORRESPONDENCE.

OUR FOREIGN LETTER.

[From Our Special Correspondent.]

VIRCHOW ON TABES, SYPHILIS, ETC.—THE CONGRESS OF SCIENTIFIC INVESTIGATORS AND PHYSICIANS—A NEW SECTION—A LEGAL VICTORY FOR THE SELLERS OF SECRET PREPARATIONS—ARTIFICIAL FOOD PREPARATIONS AND TESTS FOR THEM WITH ANALIN COLORS—THE PRUSSIAN INSTITUTE FOR THE PASTEUR TREATMENT OF RABIES OPENED—LEYDEN'S ELECTION AS CORRESPONDING MEMBER OF THE INSTITUTE OF MEDICINE, PARIS, AND OPINIONS THEREON.

BERLIN, August 2, 1898.

AT the close of a recent discussion of tabetic optic nerve atrophy at the Berlin Medical Society, Professor Virchow, who almost never misses a meeting of the Society, of which he is president, took occasion to express his views on the etiologic connection between syphilis and tabes. He has very little sympathy with the opinion now so common all over Europe that tabes is practically always the result of syphilis, and seems to think that the two diseases are connected together by no closer bond than that of mere coincidence. Syphilis is common enough anyhow, but when a patient's history is taken almost with the persuasion that syphilis is to be found in it, then it is extremely easy to light on some dubious, suspicious statement of an unwitting patient who does not realize how significant his slightest expression may be taken to be, and make it a peg on which to hang a syphilitic anamnesis.

There are other pathological conditions which it has

become the custom to attribute to syphilis, aneurism, for instance, yet it is extremely rare to find an aneurism in a tabetic subject. Amyloid degeneration of the organs is so often connected with syphilis that the pathologist always looks for it in subjects that have been syphilitic, and finds it very often. Yet amyloid degeneration is not found oftener in subjects affected by tabes than in others. The so-called amyloid bodies of the cord that are sometimes found in old tabetics are not connected with genuine amyloid degeneration, and are only the expression, it would seem, of a sort of senile evolution.

It is now with syphilis as it was formerly with malaria; when the latter disease was very common it got to be the custom to attribute a great many pathological conditions to it. At present syphilis has become very common, and so not only tabes and general paralysis, but all the constitutional diseases whose origin is as yet obscure, are attributed to it. Leucemia, formerly thought to be surely post-malarial, now comes under the head of post-syphilitic. Diabetes mellitus and pernicious anemia share the same fate.

There is certainly not sufficient demonstration of the connection between tabes and syphilis, in Professor Virchow's opinion, to justify antisyphilitic treatment in the nervous affection. The jumping to therapeutic conclusions on grounds as insufficient as exist in this case smacks of the purest empiricism, and cannot be considered rational therapy. It is all the more to be deprecated since antisyphilitic treatment, if persevered in for any length of time, cannot but be productive of harm in the sclerotic process that has already invaded the central nervous system.

The next meeting of the German Scientific Investigators and Physicians will be held at Düsseldorf from the 19th to the 24th of September. This is the seventieth annual meeting, and its proceedings may be expected to be as interesting as they always have been, this being the favorite occasion for the announcement of medical discoveries made during the year. Despite Professor Edinger's letter of last year and the discussion of the question of dividing up the interest of the sessions by the creation of further special sections, a new section, that of the history of medicine, is to hold its first sessions this year. The section evil in medical-society meetings has come to be looked upon as inevitable, and so its progress, still further specializing all the information a doctor may get at such assemblages, goes on advancing from year to year untrammeled.

After having demonstrated some time ago at the Hufeland Medical Society that the anilin dyes as used in bacteriology would probably serve as useful tests for the organotherapeutic preparations, Professor Posner has now extended the sphere of his observations in this line, and made it include the artificial food preparations. Color reactions for starch and fat were in general use before definite color reactions for albuminous bodies would seem to be possible with the Biondi triple stain and with certain of the Ehrlich stains. Professor Posner proposes to continue the series of investigations in the hope to be able to supply the practitioner with a ready method of deciding whether an artificial food preparation really contains the ingredients claimed to be in it by the manufacturers, and whether they are present in the amounts claimed without recourse to chemical analysis. Professor Posner is especially of the idea that this method may enable physicians and apothecaries to decide whether samples of the preparation delivered at different times contain the same ingredients in the same amounts as were present in the original samples. The microscope is necessary for the decision of the question, and the specimens prepared may be kept as microscopic specimens generally for reference and comparison.

A recent decision of the German courts with regard to what are called secret preparations, the equivalent of our term patent medicines, seems of interest. It is considered in a certain sense a victory for the patent-medicine people, since it asserts the illegality of the police regulations that are not founded on the wording of the law regulating the selling of drugs by apothecaries. Apothecary shops are, however, in Germany distinctly a State institution; only one is allowed to occupy a certain district, and the prices of drugs are regulated to the minutest details, there being a whole series of prescriptions containing most of the drugs in ordinary use, which the apothecary must make up for the poorer classes at prices fixed by law, and in all cases there is a limit to the charges which may be made for any given amount of a drug and for its incorporation into a prescription.

The court reasserts in explicit terms the regulations to which apothecaries are already subjected by law, and it would scarcely seem that additional police ordinances were necessary. They are permitted to sell only remedies the ingredients of which are absolutely and definitely known to them. They may not sell a remedy, unless on prescription from a doctor, that contains any drug ordinarily not allowed to be sold without a prescription. (This includes some drugs that are ordinarily not considered to be poisons but still dangerous if allowed to be procured promiscuously, as chloral, cocain, and antipyrin.) Finally, all remedies must be sold at prices that do not exceed the limit of price set for their separate ingredients in the amounts dispensed by the laws regulating the sale of drugs. If a legal victory for the patent-medicine people in America could only lead to the reassertion of some such thoroughly sensible regulations as these I think that there are those in the profession who would be ready to begin the suit at once. Meantime, however, American legislators seem not to have the slightest inkling that great frauds are being perpetrated openly on the public, and that there is practically a conspiracy between manufacturer, seller, and advertiser to make the dear public pay for its whistle if he will have it in the shape of a worthless but much praised remedy.

During July the Institute for the Treatment of Rabies according to Pasteur's method, for which, as I stated some time ago, a special item was put into the budget of the Prussian appropriation for medical matters for this year, was opened. It is in connection with Professor Koch's institute for infectious diseases at the Charité, and individuals bitten by rabid or suspected animals are to be

treated free of charge. Where the rabies of the animal that has bitten is not clear the treatment is given only at the patient's request. According to the local papers, there were five deaths from hydrophobia in Prussia during 1897, of whom 2 were veterinary surgeons. As the Prussian East Sea (Baltic) provinces extend to the Russian line, this is not many considering the reported frequency of the disease in Russia.

The profession here in Germany has received with every mark of appreciation the recent honor conferred upon Professor von Leyden in his selection as corresponding member of the French Institute of Medicine. There are but eight corresponding members altogether, of whom, until his elevation some time ago to the rank of associate of the Academy of Medicine, Professor Virchow was one. Professor von Leyden succeeds to Professor Virchow's place. It is at once a high compliment to Leyden personally, and all the more so as his work has been almost entirely in the line of clinical medicine, for scientific honors do not usually come easily to clinicians, but to the lights in the theoretic branches of medicine, but the selection is more than a personal honor. As Professor Bonchard in Paris puts it, it is a mark of the high appreciation in which German medical authorities are held by French medical men, and a sign of the better feeling between the two nations that is coming as the result of the friendly relations of the rival scientists of the two countries.

TRANSACTIONS OF FOREIGN SOCIETIES.

Paris.

GLYCOSURIA DUE TO SOMATOSE—PNEUMOTOMY FOR GANGRENE OF THE LUNG—CONGENITAL ICHTHYOSIS—FATAL ULCERATION OF THE STOMACH AND SMALL INTESTINE OF UNKNOWN ORIGIN — ERYSIPELAS FROM EMPYEMA — SERUM-THERAPY OF MUSHROOM POISONING—LIVING GERMS IN LIQUID AIR—PROPHYLACTIC MEASURES FOR TUBERCULOSIS ADVOCATED BY THE ACADEMY — TREATMENT OF ERECTILE TUMORS BY INJECTION— CYSTOCOLOSTOMY FOR EXSTROPHY OF THE BLADDER — ABDOMINAL EXTIRPATION OF CANCER OF THE RECTUM.

AT the Medical Society of the Hospitals, June 17th, RENON said that he had had occasion recently to prescribe for a nursing mother, aged forty, of a neurotic type, who after a slight attack of influenza found her milk rapidly diminishing. He ordered somatose with the happiest result, as within a few days the milk was present in abundance. Three weeks later while somatose was still being taken the infant refused the breast. The urine of the mother was found to contain a considerable quantity of sugar. The somatose was discontinued, and the glycosuria ceased at once, as did lactation. Since the glycosuria did not exist before the administration of the somatose, and disappeared with its withdrawal, the conclusion that it was produced by it, seemed unavoidable. It has also been noted by Drews and others that preparations of albumose, especially somatose, are capable of producing glycosuria. And it has also been observed that the amount of sugar in the urine of diabetics, is greatly increased if large quantities of meat are ingested. If glycosuria in lactation is due to the formation in the breasts of more sugar than can be utilized, and is therefore secreted by the kidneys, its presence in the urine of this patient would simply mean that she had received more somatose than was indicated. At any rate the case is of interest as showing one of the dangers attending the use of this class of remedies, and one of the methods of keeping watch of their action.

LE GENDRE said that he had never observed glycosuria to follow the administration to nursing mothers of somatose, and since glycosuria was by no means uncommon during lactation, he thought that other instances of the occurrence of glycosursia after the use of somatose should be reported before the conclusion could be accepted that the drug was the cause of the appearance of sugar in the urine.

GALLIARD related the history of a patient upon whom a pneumotomy was performed for pulmonary gangrene. The patient was a man, aged fifty, whose expectoration was fetid, and in whom the physical signs pointed to a gangrenous focus in the center of an area of hepatization in the lower portion of the right lung. A hollow needle was introduced, but nothing but a little blood was withdrawn. Nevertheless, on the following day, parts of two ribs were resected, and the underlying lung was pierced by a cautery-point. The point opened at once into a focus of gangrene, and pus and bits of disintegrated pulmonary tissue escaped. After the operation, the fetidity of the sputum disappeared, but a fever which had not before existed set in, and the patient died in nine days. At the autopsy a purulent collection was found above the right side of the diaphragm, which had escaped observation, and there was besides, a pericarditis and a hypertrophy of the liver. Both lungs were thickly studded with tubercles.

NETTER said that whatever might be the effect of surgical interference upon pulmonary gangrene, thoracotomy was disastrous in the presence of dilated bronchi. Since it is not always easy to diagnose this condition, and since there might be besides multiple foci of gangrene, one ought, to say the least, to be guarded in his prognosis of the results of a pneumotomy for gangrene of the lung.

June 24th, THIBIERGE presented two patients aged respectively eighteen and fifteen years, the condition of whose skin suggested ichthyosis. It was especially thick in the articular folds. There was considerable hyperkeratosis and slight hyperidrosis of the hands, while the skin of the face was retracted, and there was marked ectropion, characteristics which served to differentiate the cases from true acquired ichthyosis. In both of these patients the lesions were congenital, though there was no history of similar trouble in either of their families. For these reasons the lesion was looked upon as a cutaneous malformation, to which the name of congenital ichthyosis is sometimes given, and which is often fatal at an early period of life.

At the Session of July 1st, LE GENDRE showed the stomach and intestines of a patient whom he had treated for some time, supposing him to have typhoid fever, al-

though the serum reaction was always absent. No other lesions were found at the autopsy, except numerous ulcerations of the mucous membrane of the stomach and small intestine, and which grew fewer the farther one proceeded toward the ileocecal valve, contrary to what one observes in typhoid fever. Most of them were situated in the duodenum, and only a few were in Peyer's plaques. The mesenteric glands were sound. The bacterial examination of the organs was reported at a later session. It showed a total absence of the typhoid bacillus as well as that of anthrax. There were found both in the ulcerations and in other organs, the colon bacillus, and a long bacillus of putrefaction, but as the autopsy was not made until twenty-four hours after death, the presence of the colon bacillus could scarcely be said to be the cause of the lesions.

MENETRIER reported July 8th, the accidental contraction of erysipelas from the pus of a purulent pleurisy. The operator in this case scratched his ear with his finger-nail, causing it to bleed. The following day erysipelas developed and spead over a part of the face and neck. An interesting point in connection with the matter was that the pus was found to be harmless to animals which were inoculated with it. But it has before been observed that streptococci which are without effect upon animals are sometimes capable of causing erysipelas of a virulent type in man.

At the Biological Society, June 18th, CLAISSE pointed out that there are two poisons which affect most of the persons who are injured by eating mushrooms. One, muscarin, acts quickly as a powerful gastro-intestinal irritant, but is rarely fatal. The other, phallin, acts more slowly, so that it may be twelve, twenty-four, or even thirty-six hours, before the choleraic symptoms which it produces manifest themselves. Poisoning by this substance is usually followed by collapse and death. It is chiefly found in the variety of mushroom called *Amanita phalliodes*. Claisse expressed the idea that it might be possible to develop a serum-therapy for poisoning by phallin, just as has been successfully accomplished for poisoning by other vegetable substances, such as racin, venin, and abrin. His experiments upon this subject have not yet been finished, but he had found that both guinea-pigs and rabbits are extremely sensitive to phallin if it is injected subcutaneously, although they can eat it without any ill effects.

At the session of July 9th, D'ARSONVAL stated that he had found that immersion for seven hours in liquid air, of tubes containing the bacteria of yeast, diphtheria, and blue pus, in no way affected their virility. Other germs were mixed with the liquid air and kept at a very low temperature (—275° C.) for six days and nights without losing in any way their power of growth and reproduction. Neither did the exposure to this intense cold for long periods, affect, in their action upon living animals, the products of these bacteria, diastase, toxins, etc. Possibly there is produced around the germs an isolating envelope, which protects them from the effect of this great cold.

At the Session of June 28th, the Academy of Medicine adopted the report of its Committee on the Prophylaxis of Tuberculosis, also making the committee a permanent one.

Destruction of Tubercle Bacilli. — 1. The Academy confirmed its action of 1890, by which three prophylactic measures were advocated, *viz.*: (*a*) The collection of sputa in a pocket or vessel containing a little colored, five per cent. carbolic acid, or at least a little water; (*b*) the avoidance of dust by substituting wiping with a moist cloth for sweeping; (*c*) the boiling of milk before drinking it, no matter what its source. It was further recommended that the premises be disinfected after the death of a tuberculous patient, or even after a short sojourn by such a one. His personal effects, bed, etc., should also be disinfected.

2. Concerning the family the Academy recommended the continued practice of defensive measures from the time that tuberculosis becomes "open." It advocated as far as possible keeping pulmonary tuberculosis in a "closed" condition by an early diagnosis and suitable treatment.

3. In the army temporary restrictions should be placed about one in the first stage of the disease, while those whose sputa already contain Koch's bacilli should be under permanent surveillance.

4. In every school, store, and workshop the one in charge should be instructed in the few simple rules which are sufficient to limit the spread of this disease and should be held accountable for their observance.

5. The Academy recommended with reference to the hospitals: (*a*) The separation of tuberculous patients in their own wards and the establishment of special sanitaria for them; (*b*) Antisepsis in both general and tubercular wards, especial care being taken to suppress sweeping and in the washing of dishes. (*c*) The improvement of the character of attendants.

6. The Academy approved of meat inspection, but thought the total destruction of meat was unnecessary except in the comparatively rare cases in which the flesh of the animal is infected with tubercles, and there is fever. Stock-raisers were advised to use the tuberculin test to mark for speedy slaughter animals which have become infected.

Maintenance and Increase of the Powers of Resistance of the Organism.—The measures under this head related chiefly to the treatment of soldiers. It was advocated that they should be given greater air space, a more nutritious diet, and that enlistment, maneuvers, and changes of garrisons should be made as far as possible under favorable climatic conditions.

At the Session of July 15th, ANGER described the treatment of erectile tumors by the injection of solutions favoring coagulation. The fluid which he preferred for this purpose is composed of twelve parts of water, three parts of sodium chlorid, and five parts of tincture of the perchlorid of iron. From two to forty drops are injected in one or more places, according to the size of the tumor. This injection is not at all painful. It is made if possible into a vein. To determine with certainty that the needle is in a vessel, Anger uses a double

needle, inserting the first in various places until the blood flows out of it, and then making the injection through this needle by inserting into it the point of the smaller needle on the syringe.

One thing is very important, namely, to make firm pressure all around the tumor, as with a ring, for a few minutes during and after the injection, until firm coagulation shall have prevented the passage of clots, or the solution into the circulation. Palpation with the finger will show when the clot is firm. The tumor will swell for two or three days, and then gradually diminish in size. At the end of three or six months the injection can be repeated if necessary.

TUFFIER presented at the Session of July 12th, a young man upon whom he had successfully performed a cystocolostomy for exstropy of the bladder. The patient had several times been subjected to a plastic operation without success. The bladder was separated from the surrounding tissue sufficiently to allow the implantation of the trigonum in the sigmoid flexure, the openings of the two ureters being included in the piece thus transplanted. The wound healed well, and four months after the operation there was no inconvenience to the patient other than the necessity of a stool five or six times a day. The abdominal wound had completely closed.

At the Surgical Society, June 22d MICHAUX spoke of choledochotomy with suture. He had performed this operation four times, and the successes thus obtained led him to dissent from the views recently expressed in favor of leaving the duct to granulate without suture. Doubtless if the operator foresaw an unpleasant result from a suture in a given case it should not be performed; and in other cases perhaps suture was impossible; but with these two exceptions, he advocated the suture of the duct, which he had not found as difficult as some have said.

At the Session of June 29th, QUENU said that he had formerly held the opinion that cancer of the rectum if low down should be extirpated by the anal route; if in the middle portion, by the sacral route, and if of the upper portion, by the abdomino-perineal method. Experience had inclined him more and more to the last-mentioned method, rather than to the sacral one, until now he had given the latter up entirely. Two objections have been made to the abdomino-perineal method. One is the formation of a permanent iliac anus, and the other is the gravity of the operative attempt. It has not yet been definitely settled, however, that an iliac anus is worse than a sacral one. As to the gravity of the operation, that cannot be denied, but there is reason to believe that with practice the mortality will be reduced until it shall not exceed that of extirpation of the uterus for cancer. Two conditions are essential to success: asepsis, during and after the operation, and control of hemorrhage. The first object is obtained by the closure of the anus in the beginning of the operation, thus enabling the operator to treat the rectum as a sterile tumor, until its removal; while the loss of blood is avoided by the ligation of both internal iliac arteries.

The first step in the operation proper is a median incision and the ligation of the internal iliacs. Before these ligatures are drawn tight, the pulsation in the external iliac is felt for, to make sure that it has not been included by mistake; if enlarged glands are present they are removed. Next, the intestine is divided with a cautery between two ligatures, and its upper end is fixed in a short incision to the left of the median line. The whole lower portion of the bowel is next freed from its mesorectum, the superior hemorrhoidal vessels tied, etc. The last step of the operation is the removal of the rectum thus freed through the perineal wound, and the closure of the abdominal wound. The perineal wound is left open, with a tube and gauze for drainage.

SOCIETY PROCEEDINGS.

BRITISH MEDICAL ASSOCIATION.

Sixty-sixth Annual Meeting, Held at Edinburgh, July 26, 27, 28, and 29, 1898.

THE PRESIDENT'S ADDRESS.

THE opening address was delivered in McEwan Hall by the President, SIR THOMAS GRAINGER STEWART of Edinburgh. He extended a cordial welcome to the Association and its guests, and expressed his high appreciation of the honor conferred upon him by his election to the presidency of the Association. He spoke of those members who had been removed by death during the past year, and paid a warm tribute to the memory of Mr. Ernest Hart, for so many years editor of the *British Medical Journal*. He then said that although the science or art of medicine has made enormous strides during the past few years, the members of the profession realize only too well its limitations and how far short it falls of an ideal. As an indication of the better understanding of causation and treatment it is only necessary to remember that since 1855 the annual death-rate in England and Scotland has decreased by more than one-fifth. Due to the efforts of the profession, too, tuberculosis is not the dread disease of thirty years ago, for carefully gathered statistics show that deaths from this cause have, during the interval, decreased by one-third. The public is gradually becoming educated to the importance of precautionary measures, and there is every reason to think that, from present appearances, as the years go by, the disease will become less and less common.

Referring to the attitude of the medical profession toward the national legislature, the speaker said that its duty is evident and should be exercised at all times toward the enactment of laws looking to the preservation of the public health. While, in their way, penalties for non-observance of health laws are well enough, the effort to instruct the people in all that pertains to the well-being of themselves and their children should be unremitting, for it is by such means that legislation will accomplish the greatest good. Willingness on the part of the laity to accept sanitary legislation, and to live up to its requirements, is based upon a proper understanding of just what these measures are to accomplish. Furthermore, legislative bodies should be educated to accept the advice of

recognized medical and sanitary authorities in the framing of laws designed to preserve the health of the people, in exactly the same way that they are biased by military or legal opinions in enacting laws in these departments.

He then called attention to the strong antivaccination movement in Great Britain, referring especially to the recent legislation on this subject in Parliament and to the statement by one of the minority members of the Parliamentary Committee to the effect that compulsory vaccination in Great Britain is dead and will remain so during the next generation. According to the bill introduced in Parliament during its last session, any person "conscientiously objecting" to vaccination may, by stating his objections before two examining magistrates, be made exempt. The speaker condemned this bill in unmeasured terms and referred sarcastically to the latitude allowed these faddists, who, from a sense of ignorance, are constantly endangering their own lives and those of their families.

Every effort should be made to extend our knowledge along the lines of advance and improvement. In every branch of medicine and the allied branches investigation is the order of the day, and at the present moment there is not a recognized medical center in the world wherein original researches are not being made. Empiric medicine and theories are largely things of the past, and while they well served their turn, the foundation laid upon them has resulted, and daily is resulting, in a broad and solid structure which is destined to grow and increase until such time as the last shadow of doubt will have disappeared.

While medical education in Great Britain has made great strides during the last few decades, it is to be regretted that the tendency still is to overburden the memory of the student with unnecessary details. All medical teachers should endeavor to instil the importance of mastering methods, rather than theories, and the curricula should be shaped to this end. Successful medical teaching can never be carried on except in connection with a great hospital, and bedside instruction, as now practised, should not only be continued, but amplified to the greatest possible degree. It is to be regretted that adequate facilities for post-graduate study have not yet been provided by the larger schools, but there is every reason to hope that this branch will be attended to in the near future.

The speaker then referred to the exceedingly satisfactory growth of the Association and to the good it had accomplished, and then spoke at some length upon the National Department of Public Health, suggesting where and in what manner radical improvements might be made. In conclusion, he again touched upon the relations which should exist between the physician and the public, and said that only when self is buried, and real or imagined wrongs put entirely in the background, will the science and art of medicine be given the recognition to which it is so justly entitled.

ADDRESS IN MEDICINE.

This was delivered by DR. THOMAS RICHARD FRASER, and was confined to an exposition of the advance which has been made along various lines since the Association met in Edinburgh twenty-three years ago. At that time, Dr. Warburton Begbie, who delivered the address in medicine, took for his subject, "Has the Practice of Medicine Made a Single Step in Advance since the Time of Hippocrates?" and answered the question in the negative. Since the date of Dr. Begbie's address, the speaker said, it cannot be denied that the steps forward have been many. Although so few years have elapsed, the increase in knowledge of the fundamental principles of chemistry, physiology, and morbid anatomy; of pharmacology, symptomatology, and diagnosis; of etiology and of treatment has been so great that the practice of medicine has been wholly removed from that empiric domain in which it rested during the lifetime of our predecessors, and now has reached that height where it may well be considered a science rather than an art.

After a warm tribute to those pioneers in the profession, whose work cleared the way for the present generation, the speaker referred to the instruments now in use—the hemacytometer, sphygmograph, and ophthalmoscope—which have so aided the diagnostician, and not only simplified his work, but placed it in a category from which mere guesswork has for all time been eliminated. Chemic examination of stomach contents and of the urine has also advanced the understanding of pathologic conditions to a marked degree, and the X-ray, though its application to injury and disease is yet in its infancy, has already proved a valuable adjunct to clinical diagnosis.

The ability to arrest and sometimes cure certain of the diseases of the nervous system, through the recognition of the fact that the etiologic factor is largely the presence in the body of toxic substances is most important, and the new doctrine is day by day being strengthened by the results of new investigations. The study of mental disease, too, has received a strong impetus recently through acceptance of the theory advanced by such well-known pathologists as Nissl and Van Gieson, that auto-intoxication from the intestinal tract is largely instrumental in their production. While further investigation must follow along the lines of the theory that auto-intoxication through the medium of a toxin contained in malignant growths is the factor principally concerned in the cachectic symptoms and fatal termination, rather than the degenerative processes in the tissues, *per se*, the work that has already been done in this direction is most encouraging, and there is every reason to hope that it will result in more perfect methods of treatment in the near future.

Bacteriology, of all the branches of medicine, however, has yielded the greatest discoveries. Only a few years ago it was universally accepted that the pathologic action of microbes in the system was due to their collection in the blood-vessels; or, perhaps, to their morbid action upon the products of digestion, thus robbing the tissues of necessary nutrition. The discovery of the complex poisons, or ptomains, which pathogenic germs give rise to in the body, however, and a careful study of the structural changes produced thereby, has revolutionized old theories, and placed this doctrine of toxic origin of in-

fectious disease upon a foundation which further investigation and study will render unassailable.

Closely following these discoveries it became known that under certain conditions it was possible to immunize the individual to the effects of these bacterial toxins, a fact holding close relationship to that so well-known, that one attack of certain of the infectious diseases confers immunity from subsequent attacks of the same malady. From this point serum-therapy has advanced along well-defined lines, and new methods and new discoveries are constantly being published by intelligent investigators throughout the world, so that scientific interest has been aroused to that extent that it is paralleled by no other discovery in the realm of medicine.

The speaker then somewhat minutely recapitulated the known conditions governing immunity against pathogenic infections, and ended by saying that even though much is to be expected from the action of serum-therapy, it will be necessary to more completely understand and control disease-producing germs before it will be possible to obtain serums of relatively equal immunizing power to the lymph used against smallpox.

ADDRESS IN SURGERY.

This was delivered by MR. THOMAS ANNANDALE of Edinburgh, his subject being "The Present Position of Surgery." He considered it from three points of view—scientific, practical, and moral, and under the first head referred chiefly to the advances made in antisepsis. While the principles of this branch of surgery are now well established and understood, it is to be remembered that pathogenic organisms enter the body through other channels than breaches of the surface, and in consequence of this bacteriology rises to a point of great importance in connection with the results of injuries and surgical procedures. It has been shown that the ill effects are due to the toxins produced in the tissues by these micro-organisms, rather than to the specific action of the germs themselves. The study of physiologic chemistry and the application of its results undoubtedly will do much to throw light upon processes which as yet are unknown to us, thus allowing of a form of treatment which will be based upon sound scientific grounds. Until the origin and behavior of the various toxins have been learned, the application of antitoxin principles must necessarily be largely empiric. The subcutaneous injection of so-called antitoxic serums in connection with surgical procedures has met with uncertain results. In the speaker's own experience he had known of a number of patients to recover under this form of treatment from severe attacks of septicemia, while other patients, exactly as ill from the same cause, had recovered without such measures having been taken.

The question of the physiologic relation between different organs and tissues is also a matter which should be carefully studied. The relationship existing between the ovaries and the breast, for instance, possesses great interest to the surgeon. Acting upon this suggestion, he had removed the ovaries in three instances from women suffering from inoperable cancer of the breast, and while the disease was not cured, the removal of these organs markedly influenced the local breast condition for the better.

The use of thyroid extract in the treatment of myxedematous conditions has resulted in great benefit in many cases, and while this form of organotherapy has resulted in many disappointments, there can be no question that future developments will be productive of much good. The method of injections of the mixed toxins of streptococcus and prodigiosus in the case of malignant growths give rise to the hope that much good will ultimately result from this procedure, but it must not be forgotten, when reading the favorable published reports of these cases, that sarcomata and other growths occasionally decrease in size and even disappear without apparent cause. It is impossible to assign any reason for this decrease or disappearance except that of physiologic or bacteriologic change beyond our power to understand.

Under the second head of his address the speaker said that the best definition which characterizes the practice of surgery at the present day is *simplicity*. Leaving out the question of asepsis, which, of course, is taken for granted, this simplicity includes the technic, the instrumental assistance, and the after-treatment. As opposed to the surgery of even a decade ago, the effort and aim now is to leave as much as possible to Nature. It has taken a long time for surgeons to appreciate the importance of this step, but now that they have learned their rôle, the results have fully warranted their position.

Modern surgery has advanced also along the lines of expansion, to say nothing of the increased number of those who practise it. Delicate operations, which a few years ago would have been deemed impracticable or impossible, are now performed, and with the happiest results. The line which formerly was drawn between the duties of the general and the gynecologic surgeon has now almost disappeared, for it is appreciated that the training necessary to produce the one is equally applicable to the production of the other.

With regard to anesthetics, in the opinion of the speaker, chloroform continues to be the safest and most satisfactory agent in connection with surgical operations, but it should be administered only by a competent, well-trained anesthetist, and its effects should be carefully watched.

In treating of the moral aspect of surgery of to-day, the speaker said that while it is lamentable that the high standard which it so necessary for the members of the profession to set for themselves is ignored by many, the true cause of the evil can be traced to three factors: (1) Active competition, (2) untrained specialism, and (3) society demands.

SECTION ON OBSTETRICS AND DISEASES OF WOMEN.

FIRST DAY—JULY 27TH.

The President's address was delivered by DR. ALEXANDER RUSSELL SIMPSON. He welcomed the members and foreign guests in behalf of the oldest chair of midwifery in the world, it having been established in 1726. He then spoke at some length of the history of midwifery

and its advancement, and of the very important part it plays in general practice. Many forms of disease may come and go, but midwifery goes on forever. He said that it receives but little attention in the schools as compared with that given to medicine and surgery, and that he hoped soon to see it occupying the position it deserves.

PROFESSOR W. S. PLAYFAIR of London proposed a vote of thanks to Professor Simpson for his address, and said that he agreed with him thoroughly in regard to the teaching of obstetrics. He had always been teaching obstetrics, and had insisted on the inadequacy of the teaching and had tried to bring about a reform in that respect.

PROFESSOR MARTIN of Berlin seconded the motion, and said that he considered it of utmost importance that every physician should be well fitted for obstetric work.

DR. CULLINGWORTH of London then opened a discussion on

THE SURGICAL TREATMENT OF PELVIC INFLAMMATION.

He discussed the following points: (1) The indications for operative interference in pelvic inflammation; and (2) the choice of time for operation. Under the first head he first spoke of pelvic cellulitis. If unattended by suppuration no interference is necessary; when an abscess has formed, the pus should be evacuated as soon as it is discovered and is within reach. The indications in pelvic peritonitis cannot be stated so categorically. The personal experience of the speaker has led him to regard the following signs and symptoms as being strongly suggestive of the need for operative interference: (*a*) The presence of a definite, more or less fixed, irregular swelling in one or both posterior fossæ of the pelvis, larger than could be accounted for by a thickened tube matted together with a normal ovary. If this increases in size in spite of local treatment, the suspicion of pus gives way to certainty. (*b*) The occurrence, during an attack of acute inflammation of the uterine appendages, of a tense globular, cystic mass in the pouch of Douglas. (*c*) The outbreak of recurrent attacks of pelvic peritonitis in a patient known to have had an acute salpingitis, in whom there has remained a quiescent but obvious swelling in the posterior part of the pelvis. (*d*) The sudden appearance of symptoms of general septic infection in a patient with a more or less definite history of pelvic inflammation and a localized swelling above the vaginal roof. Such cases urgently need surgical intervention. In non-suppurative inflammation interference is indicated if there is reason to fear complications or if the circumstances of the patient are such that it is necessary to restore her to health quickly.

With regard to the choice of time for operation, it is no doubt wise, in most cases, to wait until the acute symptoms of localized peritonitis have subsided. Exceptions to this rule frequently occur, as when there are indications of acute suppuration and where the symptoms point to septic absorption.

DR. DOYEN of Paris read a paper on

(1) ABDOMINAL HYSTERECTOMY AND ITS INDICATION (TUMORS, SUPPURATION, ETC.); (2) MODIFICATION OF THE TECHNIC OF VAGINAL HYSTERECTOMY.

He said that abdominal and vaginal hysterectomy are not competing methods, but that each has its indication. He then explained the technic of the two methods and exhibited a clamp forceps, which he had devised, with which to crush the pedicle, thus preventing hemorrhage.

DR. JACOBS of Brussels read a paper, entitled

THE VAGINAL AND ABDOMINAL WAY.

After very careful study of several hundred cases the speaker had come to the conclusion that the danger is no greater in operating by one method than by the other. He had operated by the vaginal route 432 times, with 424 cures and 8 deaths; by the abdominal route 98 times, with 95 cures and 3 deaths.

DR. LANDAU of Berlin read a paper on

VAGINAL CELIOTOMY.

The author had operated in this way on 58 patients, opening multilocular cysts and the peritoneal cavity, and all had made uninterrupted recoveries. Those patients who have been operated on for non-inflammatory tumors have been cured permanently; in patients in whom inflammatory conditions led to operation, twenty per cent. were cured. Vaginal celiotomy is, after all, a laparotomy by a new route. The dangers are less than by abdominal section. He had seen only two cases in which the scar had yielded, one along its whole length, and the other only partially. From vaginal celiotomy must be excluded all tumors which must not be exposed to the liability to rupture, and he would also exclude all malignant tumors. All plastic operations on a normal sized uterus or adnexa can be done by way of the vagina. Vaginal celiotomy is considered by some as a good means of diagnosis, but he thought that if one knows how to palpate correctly this is not necessary. Vaginal celiotomy is a useful operation which in clearly defined cases furnishes good results, and on account of its relative freedom from danger should be preferred to other methods.

PROFESSOR SANGER of Leipzig said that during the last two or three years in Germany and France the general opinion had changed in favor of the abdominal method.

PROFESSOR FEHLING of Halle recommended puncture through the vagina for diagnostic purposes in difficult cases. He said that in suppurative pelvic peritonitis he made a large incision through the vagina. In chronic diseases of the adnexa, suppurative or non-suppurative, it cannot be determined which is the best method; surgeons are still experimenting. Drainage is important if the peritoneal cavity has been infected by pus, but if this has not occurred he closes it immediately. The abdominal route is attended by greater danger at the time and afterward, but if the operator is not quite sure, he should adopt the abdominal method, because he can see just what he is doing. When the uterus is sacrificed both ovaries should also be removed.

PROFESSOR MARTIN of Berlin said he was pleased to hear Dr. Cullingworth base his remarks on the clinical

features of the cases. If the disease is caused by gonorrhea the surgeon is bound to adopt a quiet and expectant method of treatment. He had been astonished to see a number of cases which were thought to be of gonorrheal infection at last prove to be instances of extra-uterine pregnancy. In some of these cases convalescence takes place; in others the patients suffer from extra-uterine deposits. Disease of the ovaries caused by the bacterium coli is more common than it is believed. Adhesions to the bowels, and invasion of the genital organs by the bacterium coli are frequently found. He recognized fully the indication for operating in poor patients who could not afford to spare the time to get well under good nursing. He would not remove the uterus if he could avoid it; patients who have retained their uterus are more benefited than those who have lost it. He advised that an organ which is amenable to further treatment should not be removed, for, if necessary, it may be removed later. He had not used drainage for many years. He adhered to the vaginal route, but confessed that there are limits to the adaptability of the method.

DR. MACAN of Dublin said that in this country it is the custom to put off operating as long as possible. He thought that operating simply because there is pelvic suppuration and a high temperature is not permissable. It is a personal equation entirely whether one incises the anterior or the posterior cul-de-sac or opens the abdomen.

PROFESSOR BYERS of Belfast said that the greater the surgeon's experience, the more accurate his diagnosis becomes, but there are cases in which the presence of pus, and the exact part involved, can only be settled by opening the abdomen. He thought that British operators had gone too far with the abdominal method. In his opinion when women have pus in the pelvis, and are in an exhausted condition, a vaginal incision will tide them over for a time until the abdomen can be opened. Operating during an attack of acute peritonitis is a very serious thing, and it is better to wait until the severity of the attack has subsided.

DR. HEYWOOD SMITH of London cited a case which illustrated the discussion: An Armenian woman came to him with an obscure fulness in the right side, high temperature, and pain. He decided to operate at once and found the right ovary and tube congested but free from disease, but from the center peeled a mass as large as an orange which contained the left ovary. The wound was closed without drainage and the patient is doing well. He thought that diseased ovaries lose their sensibility to pain, and that the pain in this instance was due to pressure on the healthy ovary. He entered a protest against the word "laparotomy" and thought "celiotomy" a better term.

DR. WARD COUSINS of Southsea advised waiting until absolutely well defined symptoms are present before operating in acute pelvic peritonitis, because many cases subside spontaneously, especially those due to gonorrhea. In the case of patients with irregular temperature and relapsing symptoms an operation is clearly indicated, and if there are changes in the tubes, the abdominal route is the best. He had never been compelled to operate in a case in which the symptoms were clearly due to gonorrhea.

DR. TAYLOR YOUNG of Sydney said that he thought that British surgeons labor under difficulties which German surgeons do not. The former meet with cases in a more advanced state than the latter, and consider conservatism more. He thought that a great mistake is made in England in not more universally adopting the dorsal position in examinations. After having made the diagnosis, the question of what to do is not so doubtful. If it is a simple abscess it should be treated in the same way as in any other part of the body; if it be multilocular and one-sided, incision should be tried first; if it is multilocular and bilateral, a radical operation is the only course to pursue. The adnexa and the uterus should be removed under these circumstances.

DR. A. LAPTHORN SMITH of Montreal thought it safer in acute peritonitis to wait until the attack has subsided. He felt that a definite rule could be laid down as to when to employ the vaginal route and when the abdominal. For large tumors located high in the pelvis, pus tubes, tubo-ovarian abscess, pyosalpinx, and tubal pregnancy the abdominal method is the best, but for small tumors, small ovarian cysts, small fibroids, and retroverted fixation the vaginal route should be chosen. He thought the uterus should be removed in cases in which the tubes and ovaries are removed. He said that the speculum designed by Dr. Doyen is of great advantage when operating in the Trendelenburg position. He has not drained for two or three years, and obtains better results than when he did drain.

DR. AMAND ROUTH of London said that almost all cases of parametritis are puerperal in origin, and are usually accompanied by indurations, rigors, and high temperature, and if the presence of pus is suspected, the peritoneal cavity should be opened. He aspirates, and if pus is found a couple of inches up the broad ligament he lays the sac open freely and drains thoroughly.

DR. MCCANN of London read a paper on

CLAMP AND LIGATURE IN VAGINAL HYSTERECTOMY FOR MALIGNANT DISEASE OF THE UTERUS.

He said that he had written his paper because there seemed to be two schools, one advocating the use of the clamp and another the ligature. He described the technic of his method of operating, and said that he leaves the clamp in position forty-eight hours. The great advantage of using the clamp is the larger amount of broad ligament which can be removed. He does not find convalescence delayed, or that sloughing occurs, and thinks that gauze plugs, left too long in the vagina, might account for some of the sloughing.

SECOND DAY—JULY 28TH.

The proceedings of the second day's session were opened by a discussion on

THE USE AND ABUSE OF THE MIDWIFERY FORCEPS,

which was opened by DR. MILNE MURRAY of Edinburgh. He stated that the selection of the subject for discussion arose out of the President's address delivered by Dr. Sin-

clair at Montreal last year, and quoted from the address as follows: "Midwifery has during the same period become also largely surgical—too surgical—and a thesis which I shall endeavor to maintain to-day is that gynecology has become so largely surgical as the direct result of surgical interference in midwifery practice. The accoucheers are providers of material for the gynecologists. The term 'surgical' is employed here with almost exclusive reference to the midwifery forceps." Dr. Murray then asked, "What is the special value of the forceps as a surgical instrument?" It enables the physician to shorten suffering and to diminish the risk of childbirth; to diminish the danger to the mother and to greatly increase the safety of the child. The direct indication for the use of the forceps arises whenever the obstetrician is sure that the danger of interference has become less than that of leaving the patient alone, and in every case this is a matter of individual judgment, and there are many things to be taken into account, such as the state of the parturient canal, the efficiency of the pains, and the condition of the child. In every case the question arises: Is it safer to act or to wait? The obstetrician is not justified in interfering until he is sure waiting would be dangerous, nor is he justified in failing to act when it has been decided that there is danger in delaying.

Dr. Murray had come to the following conclusions: (*a*) The forceps is often used at the wrong time; (*b*) it is sometimes not used at the right time; (*c*) it is often badly used at both times. He summarized the dangers of the forceps, apart from the risk of septic infection, as follows: (1) The mother's parts may be bruised, lacerated, or otherwise injured by mechanical violence; (2) the too sudden emptying of the uterus may be followed by imperfect retraction, and there is danger in consequence of hemorrhage; (3) the fetal head may be unduly compressed, lacerated, or otherwise damaged.

The most striking illustration of the use of the forceps at the wrong time is their application through an undilated os, and particular attention was called to the spasmodically rigid os, which, during the interval between pains, is soft, flabby, and easily stretched, but which, during a pain, becomes tense, hard, and greatly narrowed. The speaker had seen cases in which the attendant, thinking the os fully dilated, had ruptured the membranes, and found after the uterine pains had begun again that the os was less than two-thirds dilated. The use of the forceps in a case like this is one of the gravest and too common examples of their abuse. On account of the tension and thinness, very slight efforts at traction will tear the cervix into the vaginal roof, inflicting dangerous injuries.

In speaking of the second point—not using the forceps at the right time—he thought it a mistake to wait four hours during the second stage, as has been the custom in the Rotunda Hospital, Dublin, but if, after the dilatation of the os, the advance of the head is blocked, either by the size of the head, the resistance of the canal, or the feebleness of the pains, he would not wait a moment before using the instrument. Nothing is to be gained and much is to be lost in waiting after progress is at an end, and the danger of interference is then less than the danger of waiting. The time element alone is not a proper basis for interference. In occipitoposterior positions of the vertex, when flexion is deficient, the sooner the forceps is used the better.

Lastly, the forceps is badly used when it is indicated and when it is not indicated. The first fault in technic is in not using the most efficient instrument. The advantages of the axis-traction forceps over the old forceps are very marked. In the axis-traction forceps one has not only a means of accomplishing delivery with safety and success, but he is able to avoid laceration of the pelvic floor in cases in which it would unavoidably occur if the further process of the labor were left to Nature.

The second fault in technic is in the application of the blades; they should be applied to the biparietal diameter of the head wherever it is situated. The speaker said that he was sure that extensive damage to the lower part of the vaginal canal had been done by oblique positions of the head and forceps at the outlet. Traction should not be jerky, but should begin imperceptibly, and should increase in intensity by even gradations, like a uterine pain.

Dr. Murray adopts the following method: The forceps, after being applied to the head, is held between the thumb and finger of the right hand, while the left hand is passed over the fundus of the uterus, enabling him to control the retraction, detect the beginning of a pain, and aid the action of the forceps by efficient pressure, acting as far as possible only with a pain, and taking care that the traction is effected in such a way as to maintain the advance of the suboccipitobregmatic diameter. In this lies the secret of success, for by means of this forceps one can restore and maintain the relation of the diameter to the outlet. There is one exception to the rule of extracting with a pain, *viz.*, in elderly primiparæ when, the head being low, every uterine pain is accompanied by a spasmodic action of the muscles of the vaginal floor which for the time narrows the vulvar orifice and throws the perineum into a state of tense rigidity. In these cases anesthesia should be deepened and traction avoided except during the intervals of the pains.

PROFESSOR PLAYFAIR of London spoke of the address of Dr. Sinclair at Montreal last year, and denied that obstetricians furnish material for the gynecologist. Even if these lesions are due to the abuse of the forceps it is no argument against its use. Every improvement in medicine is open to the same criticism; because the best treatments are humbugged is no reason why they should be left to the quacks. He spoke of the delivery and death of the Princess Charlotte, when the fetal head was on the brim of the pelvis on Monday, and she was allowed to drag along until 10 o'clock Wednesday night because the obstetricians in attendance would not put on the forceps. He said that Dr. Sinclair had never alluded to one of the greatest glories of modern times, that of the total abolition of craniotomy, due to the more frequent use of the forceps.

DR. SMYLIE of Dublin said that the axis-traction forceps is always used in Dublin. The most important points in the use of the forceps is to bear in mind the indications favorable for its use. The premature use of

forceps before the head has passed the brim may end in the obstetrician not being able to deliver the child, or in serious damage to the mother or child. The reason that patients are left for four hours in the second stage in the Rotunda Hospital is because the work is mostly done by students, and stringent rules had to be laid down for them.

PROFESSOR FEHLING of Halle said that in Germany the teaching had to be very strict on account of the dreams of the students that every woman should be delivered by forceps. He thought very highly of the axis-traction forceps, but thought it more dangerous in the hands of the beginner than in those of a skilled operator. Three conditions are necessary before the forceps is allowed to be used: three-fourths of the head must have passed the brim of the pelvis, the os uteri must be dilated, and there must be good rotation of the head. Out of 3000 cases in the out-patient clinics forceps has only been employed 294 times, and not a single mother has been lost from the confinement itself, and only six children.

SIR WILLIAM PRIESTLY said that good should come from warning the younger practitioners to be careful how they use the forceps, the kind to use, and when to use it. More children are saved and less damage done than when he began to teach, nearly fifty years ago. In former days much damage was done by delay. He had seen damage done, not only to the roof of the vagina but also to the cervix uteri from the premature use of forceps.

PROFESSOR STEPHENSON of Aberdeen said it was a country practitioner who first demonstrated the value of forceps. He does not follow the rule of using forceps when the symptoms indicate danger to the mother or child, but tries to prevent these symptoms. His motto is, "Help Nature, and render the parturient force more efficient, or supplement it when deficient." In referring to the question of rotation and flexion, he said that to produce rotation is to produce flexion. A delicate touch and a full knowledge of the mechanism of labor are the essential factors.

PROFESSOR SINCLAIR said that there was a misunderstanding as to his address of last year, and that he had said nothing to suggest that he favored going back to the old practice of midwifery. He said that in Lancashire there are more cases of vesicovaginal fistula now than in the old times. He had seen more cases of damage from the premature use of forceps in the last ten years than he saw during the first ten years of the old practice. It is not the accoucheur who sees the injury done by his forceps, but the gynecologist, especially in the out-patient department of the hospitals, and the opinion that he has formed after twenty years of this experience is the result of clear conviction. He did not intend to teach the whole world midwifery, but he thought it time to take stock of our position and to consider whether we are not abusing these instruments. He thought the teaching of midwifery in the English schools as bad as it could well be. Until men are able to diagnose with exactness, and have some knowledge and judgment behind the delicate touch which has been spoken of, they will not do much good; many put on the forceps, pull the head out, and diagnose the position afterward.

DR. JARDINE of Glasgow said that ten per cent. of the cases in the Glasgow Maternity Hospital last year were of contracted pelves, and delivery by forceps was safer for both mother and child. With a true conjugate of three inches he had delivered a living child weighing 8½ pounds. The axis-traction forceps is the only instrument to use. As to applying the forceps with reference to the diameters of the head, it is theoretically correct but practically impossible.

DR. MORE MADDEN of Dublin then read a paper on

SOME IMPROVEMENTS IN THE MECHANISM AND USE OF THE MIDWIFERY FORCEPS, AND IN ITS EMPLOYMENT.

He said that the timely judicious use of the forceps is the greatest triumph of our art. The majority of cases in which it is used are those in which there is delay in the second stage; delay in the first stage is not of so much importance. The two most common causes of this delay are uterine inertia and some mechanical obstruction arising from some disproportion between the fetal head and the maternal passages; in both of these the forceps is valuable. There should be a due proportion between the force employed and the resistance to be overcome. He showed an instrument of his own devising which had great compressing power, and was only intended for those cases in which embryotomy would otherwise be employed. He also showed a pair of forceps, very simple in construction, which were designed to come in contact only with the fetal head, and a pair of tractors which could be fitted to any forceps. He did not think the vagina should be washed out before using forceps, but should be immediately after. He had never resorted to craniotomy or Cæsarean section, although he had been connected with a maternity hospital for thirty years.

DR. MARY SCHARLIEB of London read a paper, entitled

A CASE OF MISSED LABOR VERIFIED BY OPERATION AND ALSO POST-MORTEM.

The case was one in which a fully developed fetus was retained beyond the limits of normal pregnancy, died in utero, and was retained until delivered by artificial means.

DR. ROBERT JARDINE of Glasgow read a paper on

ASEPTIC MIDWIFERY.

He said that while puerperal fever has disappeared from the maternity hospitals, in private practice it has slightly increased during the last forty years. He spoke of the great importance of adopting strict septic precautions. Lysol, he thought, is the best all-round antiseptic, because it does away with greasy lubricants, which are more or less septic. Special attention should be paid to the external genitals, and examinations should be conducted with the buttocks and vulva in plain view in order that the hands may be kept from touching anything after being sterilized.

(To be continued.)

REVIEWS.

DIE PATHOLOGIE UND THERAPIE DER STERILITAT BEIM MANNE. Von DR. E. FINGER, a. o. Professor an der Universitat, Wien. Leipzig: Arthur Georgi, 1898.

THIS is the first half of a work on sterility, the second portion of which is to be written by Professor Saenger. The well-known studies of Professor Finger in the diseases of the male genital organs have furnished a substantial basis for the present volume.

After discussing the physiology of erection, he enters upon a consideration of the cases of impotence which rest upon anatomic changes. This is followed by a chapter on the causes of impotence which depend upon a functional basis. The symptomatology, pathology, and treatment are next described, the author laying especial stress on the psychic treatment of these cases. He insists, however, upon a sharp distinction between organic and functional disorders of the sexual organs, and would have, in appropriate cases, appropriate treatment directed toward those conditions which are responsible for organic disturbances of the male organs.

The second portion of this work deals with the consideration of those cases in which intercourse is possible, but in which insemination or impregnation are impossible. The author divides these cases into two classes: those in which the sterility arises through pathologic changes, and those in which it is caused by a disturbance in the inseminating apparatus.

The appendix containing the literature of the subject adds value to the work. To those interested in this branch of medicine, as well as those who have to do with cases of this nature in practice, the work can be most heartily recommended as a scientific exposition of the subject.

TRANSACTIONS OF THE NINETEENTH ANNUAL MEETING OF THE AMERICAN LARYNGOLOGICAL ASSOCIATION, held in the city of Washington, D. C., May 4, 5, and 6, 1897. New York: D. Appleton & Company, 1898.

THE interesting papers collected in this volume, as well as the notes of the discussions following their reading at the meeting are ample proof, were any needed, that with the marvelous growth of specialism in medicine, laryngology has more than held its own. The topics treated are, almost without exception, taken from the domain of clinical diagnosis or operative surgery. Experimental pathology is represented in but one treatise, one of the best in the volume, by Drs. Park and Wright, on "Nasal Bacteria in Health." The Association has cause to flatter itself on the high character of its work.

THE BULLETIN OF THE OHIO HOSPITAL FOR EPILEPTICS. January, 1898. Published by the Hospital.

THE Bulletin contains several valuable pathologic articles by Dr. A. P. Ohlmacher, director of the pathologic laboratory. It opens with a detailed report of the clinical and pathological features of six cases which came to autopsy. The anatomical findings are given in detail, and four of the six cases gave evidence of the lymphoid constitution upon which so much stress is at present being laid by pathologists. It furnishes, as well, the topic for Dr. Ohlmacher's second article in which he looks upon these findings as a possible pathological basis for some forms of epilepsy. Several beautiful photographic plates enhance the value of the bulletin.

THERAPEUTIC HINTS.

Gastric Hyperacidity.—

℞	Sodii sulphatis	ʒi
	Potasii sulphatis	gr. lxxx
	Sodii chloridi	ʒi
	Sodii carbonatis	ʒ vi
	Sodii boratis	ʒ iiss.

M. Sig. Half a teaspoonful in half a glass of warm water before breakfast and two hours before the two other meals.—*Wolff.*

Boaz has found the action of the above very efficacious in diminishing the secretion of hydrochloric acid during digestion as well as when the stomach is empty of food. He recommends also the following powder:

℞	Magnesiæ		ʒss
	Bismuthi carbonatis, Sodii carbonatis	aa	gr. lxxx
	Ext. belladonnæ, Ext. nucis vomicæ	aa	gr. iss–gr. iii.

M. Sig. Half a teaspoonful three times a day half an hour after eating.

Mixture for Intra-Urethral Injection in Gonorrhœa.—Pousson reports favorable results from the use of the following, the formula being based on the principle that a mixture of several antiseptics exhibits more energetic therapeutic action than any single one of the same even in strong solution:

℞	Menthol		gr. ¼
	Acidi salicylici		gr. iss
	Acidi carbolici, Acidi lactici, Ol. eucalypti, Methyl salicylatis	aa	gr. iii
	Resorcin		gr. viii
	Aq. dest.		ʒiii.

M. Sig. External use.

For Tapeworm.—

℞	Strontii lactici	ʒv
	Glycerini	ʒi
	Aq. dest.	ʒiii.

M. Sig. A tablespoonful morning and evening for five successive days.—*Laborde.*

For the Sweats of Phthisis.—The patient should be rubbed with the following mixture frequently:

℞	Tinct. carminativæ	*m.* vii
	Spts. etheris nitrosi	*m.* viii
	Tinct. krameriæ	*m.* xxx
	Spts. vini gallici	ʒiii
	Aq. dest. q. s. ad.	ʒvi.

M. Sig. External use.